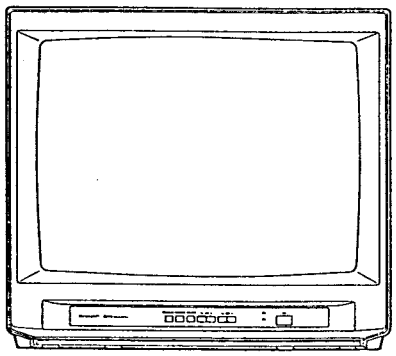
# SHARP SERVICE MANUAL
# SERVICE-ANLEITUNG

S82G8CV5133SC



## SECAM/PAL SYSTEM
## COLOUR TELEVISION
## FARBFERNSEHGERÄT

***Chassis No. 14B*** ***Chassis Nr. 14B***

## MODEL / MODELL CV-5133SC

In the interests of user-safety (Required by safety regulations in some countries ) the set should be restored to its original condition and only parts identical to those specified should be used.

Im Interesse der Benutzer-Sicherheit (in einigen Länder durch Sicherheitzvorschriften gefordert) sollte dieses Gerät wieder auf seinen ursprünglichen Zustand eingestellt und nur die vorgeschriebenen Teile verwendet werden.

The last letter of the model name on the catalog, packing case, etc. indicates the colour of the product.

**(GY)**: Metallic Gray

Die am Ende der Modellnummer in Klammern gesetzten Buchstaben — auf dem Katalog, Verpackungskarton usw. — entsprechen den Gehäusefarben.

**(GY)**: Mattgrau-Metallic

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SHARP CORPORATION

# SERVICE ADJUSTMENT

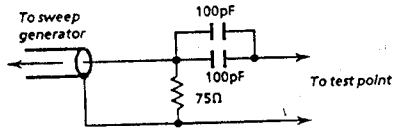
## ■ PIF/AFT/SIF/AGC ADJUSTMENT

| Adjusting Conditions | Adjusting Procedures |
|---|---|

### 1. Tuner IFT Coils

**The tuner has been factory preset (no adjustment is needed).**

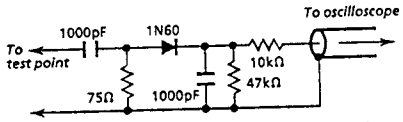
1. Set reception channel at OI-9 (When such signal is not available, set $V_T$ voltage at 10V in $V_H$ band.)
2. Connect sweep generator's output to the test point of tuner, by using a 75Ω DC cut probe.




*Connection Diagram of 75Ω DC Cut Probe.*

*Note: The sweep generator's probe should be grounded closely to the tuner test point.*

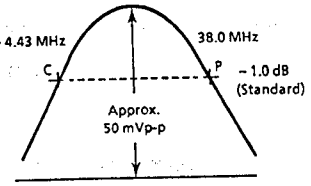
3. Output level of sweep generator: 85 dB
4. Connect response lead (low impedance probe with detector) to TP201 (collector of Q201).




*Connection Diagram of Low Impedance Probe (with Detector).*

5. PIF AGC:
   Apply DC 4.0V to TP202 (pin (48) of IC801).
6. RF AGC:
   Apply DC 4V to the tuner AGC terminal.

1. Adjust the tuner IF coils to obtain the waveform as shown figure below.




*Adjust so that "P" and "C" are at the same level.*



# WARTUNGSEINSTELLUNG

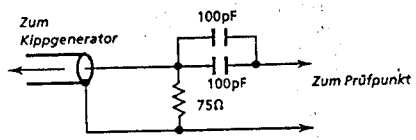
## ■ PIF/AFT/SIF/AGC-EINSTELLUNG

| Einstellbedingungen | Einstellverfahren |
|---|---|

### 1. Tuner-IFT-Spulen

**Der Tuner wurde werkseitig eingestellt (keine Einstellung erforderlich).**

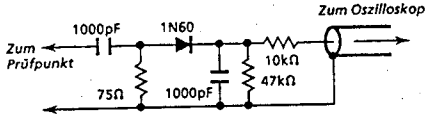
1. Den Empfangskanal bei OI-9 einstellen. (Wenn ein derartiges Signal nicht vorliegt, die $V_T$-Spannung bei 10 V im $V_H$-Band einstellen.)
2. Den Ausgang des Kippgenerators mit dem Prüfpunkt des Tuners verbinden und hierfür einen 75Ω Gleichspannungs-Meßfühler benutzen.




*Anschlußdiagramm des 75Ω Gleichspannungs-Meßfühlers*

**Hinweis:**
**Der Kippgenerator-Meßfühler muß nahe des Tuner-prüfpunkts geerdet werden.**

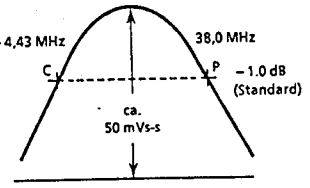
3. Ausgangspegel des Kippgenerators : 85dB
4. Das Eingangskabel (niedriger Impedanz-Meßfühler mit Detektor) an TP201 anschließen (Kollektor von Q201).




*Anschlußdiagramm für niedrige Impedanz-Meßfühler (mit Detektor).*

5. PIF AGC:
   4,0V Gleichspannung an den TP202 anlegen (Stift (48) von IC801).
6. HF AGC:
   4V Gleichspannung am Tuner AGC-Anschluß anlegen.

1. Die Tuner ZF-Spulen einstellen, um die nachfolgende wellenform zu erhalten.




*So einstellen, daß "P" und "C" den gleichen Pegel aufweisen.*

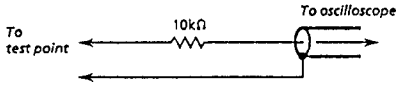
## ■ PIF/AFT/AGC ADJUSTMENT (Continued)

| Adjusting Conditions | Adjusting Procedures |
|---|---|

### 2. P-Detector Adjustment

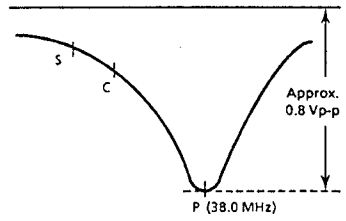
Adjusting Point
☐ T205: P-Detector coil

1. Connect sweep generator's output to TP203 (pin (46) of IC801).
   • Probe in use: 75Ω DC cut probe
   • Sweep output level: 90 dB
2. PIF AGC:
   Apply 4.0V DC to TP202 (pin (48) of IC801).
3. Have AFT muted (by pressing the preset key to bring in the SEARCH mode).
4. Connect response lead to TP204.
   The response lead in use should be a direct probe with a resistor of 10 kΩ included.



*10 kΩ Direct Probe.*

1. Adjust T205 so that 38.0 MHz signal is at maximum (± 50 kHz).




* Adjust PIF AGC voltage so that the output waveform is of approx. 0.8 Vp-p.

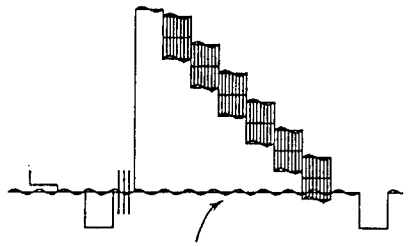
### 3. AFT Adjustment

**Fine Adjustment**

Adjusting Point
☐ T205: AFT coil

1. Receive "PAL COLOUR BAR (Channel OI-9)" signal.
   If "channel OI-9" signal is not available, it is enough to receive the signal of more than channel-E5 or UHF signal.
   • Signal strength: Over 55dB, Below 80dB
2. Connect the Regulated DC Power Supply to the tuner's $V_T$ (approx. 10V to be applied) to receive channel-OI-9.
3. Connect oscilloscope to TP205.
   • Oscilloscope range: 0.5 V/div.
   • Sweep time: 20 μsec/div.
   • Synchronization: Horizontal sync.
4. Connect the output of SSG (Standard Signal Generator) to the tuner IF output terminal across a capacitor of 1pF.
   • SSG output: 38.0 MHz ± 5 kHz (non modulated)
   • SSG output level: approx. 85 dB
   * When the preset button is at PRESET position, AFT is turned off.
   * When the preset button is set at NORMAL position, AFT is turned on.

1. Press the preset key to adjust the voltage of the Regulated DC Power Supply until there is no beating in the oscilloscope's waveform.
2. Set the preset button at NORMAL position.
3. Adjust T205 so that no beating is caused at the output waveform.


Finely adjust to make zero the beating

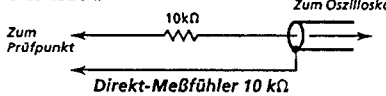
## ■ PIF/AFT/SIF/AGC-EINSTELLUNG (Fortsetzung)

| Einstellbedingungen | Einstellverfahren |
|---|---|

### 2. P-Detector-Einstellung

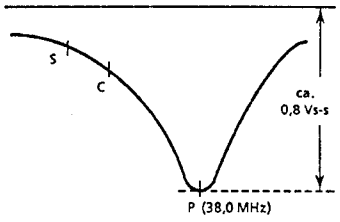
Einstellpunkt
☐ T205: P-Detector-spule

1. Den Kippgenerator-Ausgang mit TP203 verbinden (Stift (46) von IC801).
   • Benutzter Meßfühler:
   75Ω Gleichspannungs-Meßfühler
   • Kippegelausgang: 90 dB
2. PIF AGC:
   4,0 V Gleichspannung dem TP202 zuführen (stift (48) von IC801).
3. Das AFT-System dämpfen. (Die Vorwahltaste auf die Suchbetriebsart einstellen).
4. Die Eingangsleitung mit TP204 verbinden.
   Die verwendete Eingangsleitung muß einen Direkt-Meßfühler mit einem Widerstand von 10kΩ haben.



*Direkt-Meßfühler 10 kΩ*

1. T205 so einstellen, daß das 38,0-MHz-Signal den max. Pegel erreicht (± 50 kHz).




* Die PIF AGC Spannung so einstellen, daß die Ausgangswellenform ca. 0,8 Vs-s beträgt.

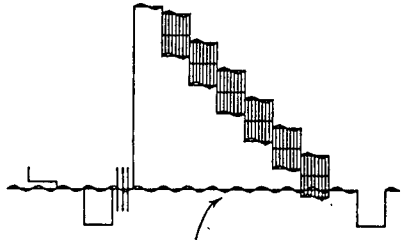
### 3. AFT-Einstellung

**Feineinstellung**

Einstellpunkt
☐ T205: AFT-spule

1. Das "PAL-FARBBALKEN (Kanal-OI-9)"-Signal empfangen.
   Wenn das Kanal-OI-9-Signal nicht vorliegt, reicht der Empfang von mehr als Kanal E5 bzw. das UHF-Signal aus.
   • Signalstärke: über 55dB, unter 80dB
2. Die Gleichstromversorgung an $V_T$ des Tuners anschließen (ungefähr 10V zuführen) und das Kanal-OI-9-Signal empfangen.
3. Das Oszilloskop an TP205 anschließen.
   • Oszilloskop-Meßbereich: 0,5 V/Teilung
   • Durchlaufzeit: 20 μsec/Teilung
   • Synchronisierung: horiz. Synchron.
4. Den Ausgang des SSG (Standard-Signal-Generator) an den Tuner-ZF-Ausgangsanschluß entlang des Kondensators von 1 pF messen.
   • SS-Ausgang: 38,0 MHz ± 5 kHz (nicht moduliert)
   • SSG-Ausgangspegel: ca. 85 dB
   * Wenn die Festsendertaste auf Voreinstellung steht, ist die AFT-Funktion ausgeschaltet.
   * Wenn die Festsendertaste auf NORMAL steht, ist die AFT-Funktion aktiviert.

1. Die Vorwahltaste Drücken und die Spannung der Gleichstromversorgung so einstellen, daß an der Ausgangswellenform auf dem Bildschirm des Oszilloskops keine Schwingung entsteht.
2. Die Festsendertaste auf NORMAL stellen.
3. T205 so einstellen, daß an der Ausgangswellenform keine Schwingung entsteht.


Die Wellenform schließlich so einstellen, daß die Schwingung Null beträgt.

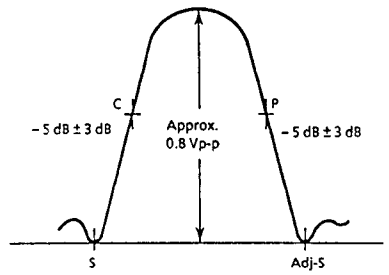
## ■ PIF/AFT/SIF/AGC ADJUSTMENT (Continued)

| Adjusting Conditions | Adjusting Procedures |
|---|---|

### 4. PIF Overall Adjustment

1. Receive "PAL COLOUR BAR (Channel OI-9)" signal.
   If channel-OI-9 signal is not available, set $V_T$ voltage at 10V in $V_H$ band.
2. Connect sweep generator's output to the test point of tuner.
   - Probe in use: 75Ω DC cut probe
   - Sweep output level: 90 dB
3. Connect response lead to TP204.
   The response lead in use should be a direct probe with a resistor of 10kΩ included.
4. RF-AGC:
   Apply approx. 4.0V DC to the tuner AGC terminal.
5. PIF AGC:
   Apply approx. 4.0V DC to TP202.
6. Connect a 120Ω damping resistor in parallel to R215, short C243 and C244.
7. Turn off AFT.

1. Adjust IF AGC voltage so that the output waveform is of approx. 0.8Vp-p.
2. Check that the overall waveform is as shown in Figure below.

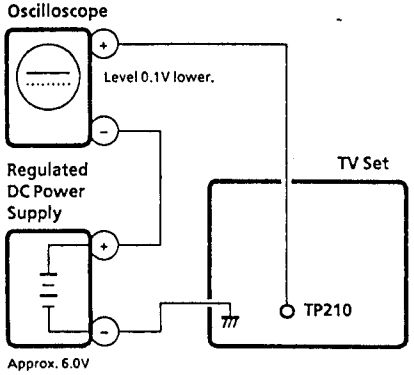



### 5. RF-AGC Cut-In Adjustment

Adjusting Point
☐ R248: RF-AGC control

1. Keep the AGC Cut-in control near the center position.
2. Receive "PAL COLOUR BAR (Channel OI-9)" signal.
   - Signal strength:
     54dB ± 1 dB (with 50Ω open)
3. Connect the oscilloscope to the tuner's AGC terminal (TP210).
   - Range: DC range
   - Voltage: 10mV/div.
   - Sweep: 10msec./div.
   * Set the Regulated DC Power Supply to approx. 6.0V and turn up the oscilloscope range to 10mV (DC).

1. Turn R248 to obtain the highest voltage.
2. Turn R248 slowly in the opposite direction until the voltage drops 0.1V lower than the highest level.
3. Change the antenna input signal to 65dB ± 2dB and make sure there is no noise. Turn up the input signal to 90 — 95dB to be sure that there is no cros-modulation beat.





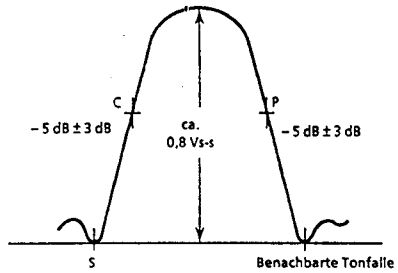

## ■ PIF/AFT/SIF/AGC-EINSTELLUNG (Fortsetzung)

| Einstellbedingungen | Einstellverfahren |
|---|---|

### 4. PIF -GESAMTEINSTELLUNG

1. Das "PAL-FARBBALKEN (Kanal-OI-9)"-Signal empfangen.
   Wenn das Kanal-OI-9-Signal nicht vorliegt, die $V_T$-Spannung im $V_H$-Band auf 10V einstellen.
2. Den Ausgang des Kippgenerators mit dem Prüfpunkt des Tuners verbinden.
   - Benutzter Meßfühler:
     75Ω Gleichspannungs-Meßfühler
   - Kippegelausgang: 90 dB
3. Die Ansprechleitung an TP204 anschließen.
   Die verwendete Eingangsleitung muß einen Direkt-Meßfühler mit einem Widerstand von 10 kΩ haben.
4. HF-AGC: Ca. 4,0 V Gleichspannung dem Tuner-AGC-Anschluß zuführen.
5. PIF AGC: Ca. 4,0 V Gleichspannung dem TP202 zuführen.
6. Eine 120-Ω-Dämpfungswiderstand parallel zum R215 anschließen und C243 und C244 kurzschließen.
7. Die AFT-Funktion ausschalten.

1. Die ZF-AGC-Spannung so einstellen, daß die Wellenform ca. 0,8 Vs-s beträgt.
2. Sicherstellen, daß die Gesamtwellenform wie in nachfolgender Abbildung aussieht.

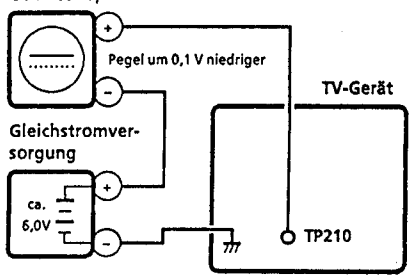



### 5. RF-AGC-EINSCHALTEINSTELLUNG

Einstellpunkt
☐ R248: HF-AGC-Regler

1. Den AGC-Regler nahe der Mittelposition positionieren.
2. Das "PAL-FARBBALKEN (Kanal-OI-9)"-Signal empfangen.
   - Signalstärke:
     54dB ± 1 dB (mit 50Ω offen)
3. Das Oszilloskop an den AGC-Anschluß (TP210) des Tuners anschließen.
   - Meßbereich: Gleichspannungsbereich
   - Spannung: 10mV/Teilung
   - Durchlaufzeit: 10msec/Teilung
   * Die Gleichstromversorgung auf ca. 6,0 V einstellen und den Synchroskopbereich auf 10 mV (Gleichspannung) aufdrehen.

1. R248 so einstellen, daß die höchste Spannung erzielt wird.
2. R248 langsam in die Gegenrichtung drehen, bis die Spannung um 0,1 V unter den höchsten Spannungswert abfällt.
3. Das Antennen-Eingangssignal auf 65 dB ± 2dB einstellen und sicherstellen, daß kein Bildrauschen auftritt. Das Eingangssignal auf 90-95 dB aufdrehen und sicherstellen, daß keine Kreuzmodulations-Schwingung vorliegt.



## ■ 115V LINE ADJUSTMENT

| Adjusting Conditions | Adjusting Procedures |
|---|---|
| Adjusting Point<br>☐ R711: 115V Adjustment Control<br><br>1. Set the R711 to 5/10 before supplying power.<br>2. Receive "MONOSCOPE PATTERN (Channel OI-3)" signal.<br>3. Set Contrast and Brightness controls at MAX position.<br>4. Connect DC milliammeter to TP602 and TP603. (Full scale: 3 mA)<br>5. Using the DC milliammeter, check to see that the beam current is between 0.8 and 1.1mA.<br>Note:<br>In other cases than the above, adjust the R420 Sub-Contrast control.<br>6. Connect Digital voltmeter to TP701. | 1. Adjust the R711 until the TP701's voltage becomes 115 ± 0.5V. |

## ■ VIDEO/CHROMA ADJUSTMENT

| Adjusting Conditions | Adjusting Procedures |
|---|---|
| **1. CRT Cut-off Adjustment** | |
| Adjusting Point<br>☐ R853: Red Bias control<br>☐ R859: Green Bias control<br>☐ R865: Blue Bias control<br>☐ T602: Screen control (a part of T602)<br>☐ R857: Green Drive control<br>☐ R863: Blue Drive control<br><br>*Note: Prior to this adjustment, warm up the unit with the beam current of more than 0.7mA for more than 30 minutes.*<br><br>1. Receive "MONOSCOPE PATTERN (Channel OI-3)" signal.<br>2. Push the "P-N" key on the remote controller to make the picture normal.<br>3. Set Red bias control at MIN position.<br>Set Green bias control at MIN position.<br>Set Blue bias control at MIN position.<br>Set Green drive control at CENTER position.<br>Set Blue drive control at CENTER position.<br>4. Set the Screen control at MIN position.<br>5. Short TP501 and TP502.<br>6. Short TP401 and TP402. | 1. Slowly turn the Screen control clockwise until the horizontal raster appears slightly, and stop it.<br>2. Here, one of the three colours (red, blue, green) appears first as the Screen control is turned. So, touching off the Bias control belonging to the first colour, use and move the other two controls so that the horizontal raster becomes white.<br>3. Turn the Screen control counterclockwise until the horizontal raster disappears, and stop it. |



## ■ 115V-LEITUNGSEINSTELLUNG

| Einstellbedingungen | Einstellverfahren |
|---|---|
| Einstellpunkt<br>☐ R711: 115V-Einstellregler<br><br>1. R711 vor dem Einschalten auf 5/10 einstellen.<br>2. Das "MONOSKOPMUSTER (Kanal-OI-3)"-Signal empfangen.<br>3. Die Kontrast-und Helligkeitsregler auf max. Einstellposition bringen.<br>4. Ein Gleichstrom-Milliamperemeter an TP602 und TP603 anschlfeßen. (ganze Skala: 3 mA)<br>5. Mit dem Gleichstrom-Milliamperemeter sicherstellen, daß der Strahoenstrom zwischen 0,8 und 1,1mA beträgt.<br>Hinweis:<br>Whenn der Wert außerhalb des Sollwerts liegt, den Hilfskontrastregler (R420) erneut einstellen.<br>6. Das Digital voltmeter an TP701 anschließen. | 1. R711 so einstellen, daß die Spannung an TP701 115 ± 0.5V beträgt. |

## ■ VIDEO/FARBTON-EINSTELLUNG

| Einstellbedingungen | Einstellverfahren |
|---|---|
| **1. Einstellung der Bildröhre** | |
| Einstellpunkt<br>☐ R853: Rot-Vorspannungsregler<br>☐ R859: Grün-Vorspannungsregler<br>☐ R865: Blau-Vorspannungsregler<br>☐ T602: Bildschirmregler (Teil von T602)<br>☐ R857: Grün-Treiberregler<br>☐ R863: Blau-Treiberregler<br><br>**Hinweis: Vor der Einstellung muß das Gerät mit dem Strahlenstrom von über 0.7mA für mehr als 30 Minuten vorgewärmt werden.**<br><br>1. Das "MONOSKOPMUSTER (Kanal-OI-3)"-Signal empfangen.<br>2. Die "P-N"-Taste an der Fernbedienung drücken, um ein normales Bild zu erhalten.<br>3. Den Rot-Vorspannungsregler in die MIN-Position bringen.<br>Den Grün-Vorspannungsregler in die MIN-Position bringen.<br>Den Blau-Vorspannungsregler in die MIN-Position bringen.<br>Den Grün-Treiberregler in die CENTER-Position bringen.<br>Den Blau-Treiberregler in die CENTER-Position bringen.<br>4. Den Bildschirmregler in die MIN-Position bringen.<br>5. TP501 und TP502 kurzschließen.<br>6. TP401 und TP402 kurzschließen. | 1. Den Bildschirmregler langsam im Uhrzeigersinn drehen, bis der Horizontalraster schwach erscheint.<br>2. Eine der drei Farben (rot, blau, grün) erscheint beim Drehen des Bildschirmreglers zuerst auf dem Schirm.<br>Nun den Vorspannungsregler für die erste Farbe verstellen und ebenfalls die beiden anderen Vorspannungsregler, bis der Horizontalraster weiß wird.<br>3. Den Bildschirmregler langsam im Gegenuhrzeigersinn drehen, bis der Horizontalraster verschwindet. |

## ■ VIDEO/CHROMA ADJUSTMENT (Continued)

| Adjusting Conditions | Adjusting Procedures |
|---|---|

### 2. White Balance and Back Ground Adjustment

| | |
|---|---|
| Adjusting Point<br>☐ R857: Green Drive control<br>☐ R863: Blue Drive control<br>☐ R420: Sub-Contrast control<br><br>*Note: Prior to this adjustment, warm up the unit with the beam current of more than 0.7mA for more than 30 minutes.*<br><br>1. Receive "MONOSCOPE PATTERN (Channel OI-3)" signal.<br>2. Set the Contrast and Brightness controls at MAX position.<br>3. Connect DC milliammeter to TP602 and TP603. (Full scale:3 mA) | 1. Adjust Sub-Contrast control so that the beam current becomes 1.1 mA (rough adjustment)<br>2. Adjust Green Drive control and Blue Drive control so that the colour temperature is at 7500°K. (High beam: 1.1 mA).<br>3. Adjust the Contrast control and Brightness control so that the beam current is approx. 200µA, and check that the colour temperature is at 7500°K. If the temperature is not at 7500°K, go back to "CRT CUT-OFF ADJUSTMENT" and repeat the adjustment. |

### 3. Sub-Contrast Adjustment

| | |
|---|---|
| Adjusting Point<br>☐ R420: Sub-Contrast control<br><br>*Note: Prior to this adjustment, warm up the unit with the beam current of more than 0.7mA for more than 30 minutes.*<br><br>1. Receive "MONOSCOPE PATTERN (Channel OI-3)" signal.<br>2. Set the Contrast and Brightness controls at MAX position.<br>3. Connect DC milliammeter to TP602 and TP603. (Full scale: 3 mA) | 1. Adjust Sub-Contrast control so that the beam current becomes 1.1 mA. |

## ■ DEFLECTION LOOP ADJUSTMENT

| Adjusting Conditions | Adjusting Procedures |
|---|---|

### 1. Horizontal Size Adjustment

| | |
|---|---|
| Adjusting Point<br>☐ P601: Horizontal Size control<br><br>1. Receive "MONOSCOPE PATTERN (Channel OI-3)" signal.<br>2. Set the Brightness and Contrast controls at MAX position. | 1. Adjust P601 so that the horizontal size of picture is at the best point.<br>Horizontal overscan: 8% TYP<br>(Min. 6%, Max.10%) |



## ■ VIDEO/CHROMA-EINSTELLUNG (Fortsetzung)

| Einstellbedingungen | Einstellverfahren |
|---|---|

### 2. Einstellung für Weißbalance und Hintergrund

| | |
|---|---|
| Einstellpunkt<br>☐ R857: Grünregler<br>☐ R863: Blauregler<br>☐ R420: Sub-Kontrastregler<br><br>Hinweis:<br>Vor Durchführung dieser Einstellung ist das Gerät mit dem Strahlstrom von über 0.7 mA für mehr als 30 Minuten vorzuwärmen.<br><br>1. Das "MONOSKOPMUSTER (Kanal-OI-3)"-Signal empfangen.<br>2. Die Helligkeits- und Kontrastregler in die Maximalstellung (MAX) bringen.<br>3. Ein Gleichstrom-Milliamperemeter an TP602 und T603 anschließen (Volle Meßskala 3 mA). | 1. Den Sub-Kontrastregler so einstellen, daß der Strahlstrom 1,1 mA beträgt (Grobeinstellung).<br>2. Die Grün- und Blauregler so einstellen, daß die Farbtemperatur 7500°K beträgt. (Hoher Strahlstrom: 1,1 mA)<br>3. Die Kontrast- und Helligkeitsregler so einstellen, daß der Strahlstrom ca. 200µA beträgt und überprüfen, ob die Farbtemperatur 7500°K beträgt. Wenn die Farbtemperatur nicht 7500°K entspricht, zum Abschnitt "EINSTELLUNG DER CRT-UNTERBRECHUNG" zurückkehren und die Einstellung wiederholen. |

### 3. Einstellung des Sub-Kontrastreglers

| | |
|---|---|
| Einstellpunkt<br>☐ R420: Sub-Kontrastregler<br><br>Hinweis:<br>Vor Durchführung dieser Einstellung ist das Gerät mit dem Strahlstrom von über 0.7 mA für mehr als 30 Minuten vorzuwärmen.<br><br>1. Das "MONOSKOPMUSTER (Kanal-OI-3)"-Signal empfangen.<br>2. Die Helligkeits- und Kontrastregler in die Maximalstellung (MAX) bringen.<br>3. Ein Gleichstrom-Milliamperemeter an TP602 und TP603 anschließen (Volle Meßskala 3 mA). | 1. Den Sub-Kontrastregler so einstellen, daß der Strahlstrom 1,1 mA beträgt. |

## ■ EINSTELLUNG DER ABLENKSCHLEIFE

| Einstellbedingungen | Einstellverfahren |
|---|---|

### 1. Einstellung der Horizontalgröße

| | |
|---|---|
| Einstellpunkt<br>☐ R601: Regler für Horizontalgröße<br><br>1. Das "MONOSKOPMUSTER (Kanal-OI-3)"-Signal empfangen.<br>2. Die Helligkeits- und Kontrastregler in die Maximalstellung (MAX) bringen. | 1. P601 so einstellen, daß sich de Horizontalgröße des Schirmbilds in der besten Position befindet.<br>• Horizontalabtastung: 8% TYP<br>(min. 6%, max. 10%) |

## ■ DEFLECTION LOOP ADJUSTMENT (Continued)

| Adjusting Conditions | Adjusting Procedures |
|---|---|

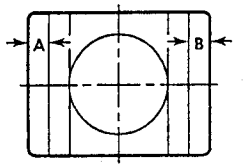
### 2. Horizontal Centering Adjustment

Adjusting Point
☐ R613: Horizontal Centering control

*Note: This adjustment should be performed after the purity and convergence adjustments.*

1. Receive "MONOSCOPE PATTERN (Channel OI-3)" signal.

1. Adjust R613 so that the image is at the horizontal center and that the clearances A and B are equal to each other.




### 3. Vertical Linearity Adjustment

Adjusting Point
☐ R514: Vertical Linearity control

1. Receive "MONOSCOPE PATTERN (Channel OI-3)" signal.

1. Adjust R514 so that the vertical linearity is best.

### 4. Vertical Size Adjustment

Adjusting Point
☐ R509: Vertical Size control

*Note: Keep the vertical size well balanced with the horizontal size.*

1. Receive "MONOSCOPE PATTERN (Channel OI-3)" signal.
2. Set the Brightness and Contrast controls at MAX position.

1. Adjust R509 so that the vertical size overscan is the same as that of the horizontal size.
Vertical overscan: 8% TYP (Min. 6%, Max. 10%)

### 5. Vertical Centering Adjustment

Adjusting Point
☐ S501: Vertical Centering control

*Note: This adjustment should be performed after the purity and convergence adjustments.*

1. Receive "MONOSCOPE PATTERN (Channel OI-3)" signal.

1. Adjust S501 so that the image is at the vertical center.



## ■ EINSTELLUNG DER ABLENKSCHLEIFE (Fortsetzung)

| Einstellbedingungen | Einstellverfahren |
|---|---|

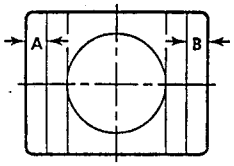
### 2. Einstellung der Horizontalmitte

Einstellpunkt
☐ R613: Regler für Horizontalmitte

Hinweis:
Diese Einstellung muß nach der Reinheits- und Konvergenzeinstellung durchgeführt werden.

1. Das "MONOSKOPMUSTER (Kanal-OI-3)"-Signal empfangen.

1. R613 so einstellen, daß sich das Schirmbild in der Horizontalmitte befindet und die Abstände A und B zueinander identisch sind.




### 3. Einstellung der Vertikallinearität

Einstellpunkt
☐ R514: Regler für Vertikallinearität

1. Das "MONOSKOPMUSTER (Kanal-OI-3)"-Signal empfangen.

1. R514 so einstellen, daß sich die beste Vertikallinearität ergibt.

### 4. Einstellung der Vertikalgröße

Einstellpunkt
☐ R509: Regler für Vertikalgröße

Hinweis:
Die Vertikalgröße mit der Horizontalgröße gut ausbalancieren.

1. Das "MONOSKOPMUSTER (Kanal-OI-3)"-Signal empfangen.
2. Die Helligkeits- und Kontrastregler in die Maximalstellung (MAX) bringen.

1. R509 so einstellen, daß die Vertikalgröße nabtastung gleich wie bei der Horizontalgröße ist.
• Vertikalabtastung: 8% TYP
(min. 6%, max. 10%)

### 5. Einstellung der Vertikalmitte

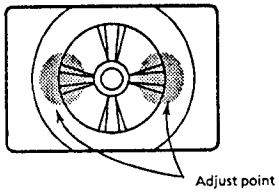
Einstellpunkt
☐ S501: Regler für Vertikalmitte

Hinweis:
Diese Einstellung muß nach der Reinheits- und Konvergenzeinstellung durchgeführt werden.

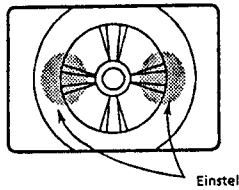
1. Das "MONOSKOPMUSTER (Kanal-OI-3)"-Signal empfangen.

1. S501 so einstellen, daß sich das Schirmbild in der Vertikalmitte befindet.

## ■ FOCUS ADJUSTMENT

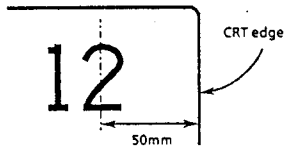
| Adjusting Conditions | Adjusting Procedures |
|---|---|
| 1. Adjust the sub-contrast control and make sure the beam current is exactly 1.1 mA. Now adjust the focus control to obtain the best focus. |  |

## ■ FOKUSEINSTELLUNG

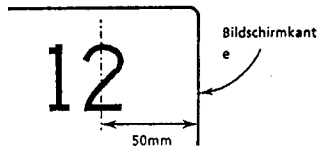
| Einstellbedingungen | Einstellverfahren |
|---|---|
| 1. Den Sub-Kontrastregler einstellen und sicherstellen, daß der Strahlstrom genau 1,1 mA beträgt. Danach den Fokusregler einstellen, um den besten Fokus zu erzielen. |  |

10

## ■ CRT DISPLAY ADJUSTMENT

| Adjusting Conditions | Adjusting Procedures |
|---|---|
| **1. Sign Position Adjustment** | |
| Adjusting Point<br>☐ T1001: Sign Position control<br><br>1. Turn the channel call on (on the remote controller). | 1. Adjust T1001 so that the center of the first-digit figure of the channel number be about 50 mm from the right edge of the CRT.<br>  |

## ■ EINSTELLUNG DER BILDSCHIRMANZEIGE

| Einstellbedingungen | Einstellverfahren |
|---|---|
| **1. Position des Bildschirmsymbols** | |
| Einstellpunkt<br>☐ T1001: Bildschirmsymbolregler<br><br>1. Den Kanalabruf aktivieren (auf der Fernbedienung) | 1. T1001 so einstellen, daß sich die Mitte der ersten ziffer der Kanalnummer ca. 50 mm von der rechten Bildschirmkante befindet.<br>  |

## ■ PURITY ADJUSTMENT

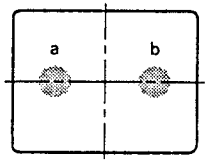
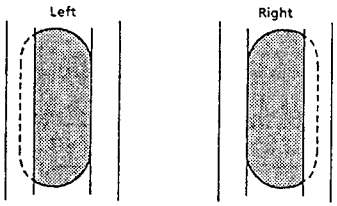
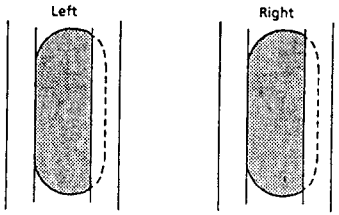



*Figure A.*



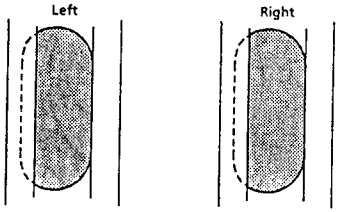

The beam landing is shifted outwards.

*Figure B.*




The beam landing is shifted to right.

*Figure C.*




The beam landing is shifted to left.

*Figure D.*

**Adjusting Conditions**

1. Prior to the purity adjustment, warm up the unit with beam current of more than 0.7 mA, for more than 30 minutes.
2. Receive the green signal alone and adjust the beam current to approx. 0.7 mA.
3. Fully degauss the CRT with the degaussing coil.
4. Before the purity adjustment, it is needed to roughly adjust the static convergence.
5. Set the purity magnet at the position which gives zero (0) magnetic field.

**Adjusting Procedures**

**Adjustment:**

During the adjustment, keep the unit facing the east.

1. Observe the green spots ("a" and "b") with a microscope as shown in *Fig. A*, and adjust the purity magnet so that they are at the specified landing position.
2. If the right and left green spots are both deviated outwards from their landing positions as shown in *Fig. B*, push the deflection yoke forwards until their positions are corrected.
3. If the beam landing is shifted to right or left as shown in *Figs. C* and *D*, adjust the opening degree of the purity magnet so that the beam landing is correctly positioned.
4. Adjust the purity magnet so that the beam landing is correct at either of the central part, right and left parts of screen, then check that the green beams at four corners of screen are all correctly positioned.
   Finally, check that the beam landing at any pat of screen is satisfactory with the Rank "B" specifications.
5. If the green beam is positioned to mix with the other colour, pull the deflection yoke backward.
   - Outside of the specified landing:
     To front of the deflection yoke.
   - Inside of the specified landing:
     To back of the deflection yoke.
6. Set the raster rotation at "0" position (with the unit facing the east).
7. Tighten the screws of the deflection coil.
   Tightening torque: 11 kg ± 2 kg.



## ■ EINSTELLUNG DER FARBREINHEIT

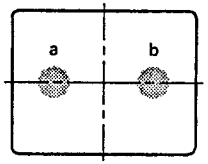
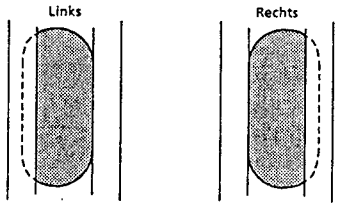
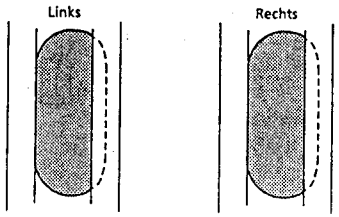



*Abbildung A.*



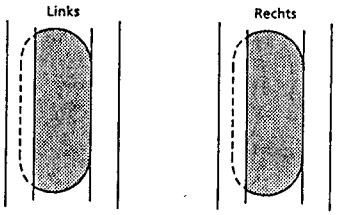

Der Stahlenaufprallpunkt ist nach außen verschoben.

*Abbildung B.*




Der Stahlenaufprallpunkt ist nach rechts verschoben.

*Abbildung C.*




Der Stahlenaufprallpunkt ist nach links verschoben.

*Abbildung D.*

**Einstellbedingungen**

1. Vor der Farbreinheitseinstellung muß das Gerät mit dem Strahlenstrom von über 0.7 mA für mehr als 30 Minuten vorgewärmt werden.
2. Nur das Grün-Signal empfangen und den Strahlenstrom auf ca. 0.7 mA einstellen.
3. Den Bildschirm mit der Entmagnetisierungsspule vollkommen entmagnetisieren.
4. Vor der Farbreinheitseinstellung muß die statische Konvergenz grob eingestellt werden.
5. Den Reinheitsmagneten in die Position bringen, die eine magnetische Feldstärke von Null ergibt.

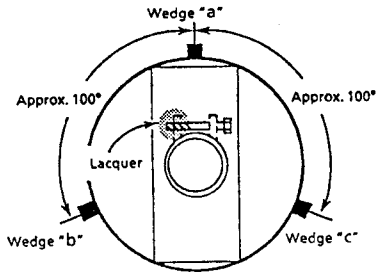
**Einstellverfahren**

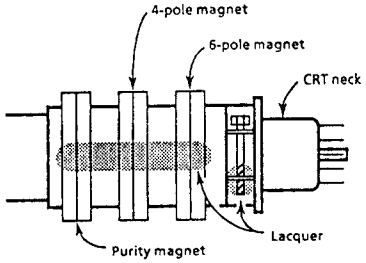
**Einstellung:**

Während der Einstellung muß daß Gerät in östliche Richtung gedreht werden.

1. Die grünen Flecken ("a" und "b") mit einem Vergrößerungsglas (siehe *Abb. A*) betrachten und den Farbreinheitsmagneten so einstellen, daß sich die Flecken in der festgelegten Aufprallposition befinden.
2. Wenn die rechten und linken grünen Flecken von ihrer Aufprallposition nach außen abweichen (siehe *Abb. B*), das Ablenkjoch nach vorne drücken, bis ihre Positionen korrigiert sind.
3. Wenn der Strahlenaufprall nach rechts oder links verschoben wird (siehe *Abbildungen. C* und *D*), den Öffnungswinkel des Farbreinheitsmagneten so einstellen, daß der Strahlenaufprall korrekt positioniert ist.
4. Den Farbreinheitsmagneten so einstellen, daß der Strahlenaufprall in der Mitte sowie am rechten bzw. linken Bildschirmrand korrekt ist. Danach überprüfen, ob die grünen Strahlen an den vier Ecken des Bildschirms richtig positioniert sind. Schließlich ist noch sicherzustellen, ob der Strahlenaufprall an jeder Stelle des Bildschirms gemäß den Spezifikationen von "Rang B" entspricht.
5. Wenn der grüne Strahl so positioniert ist, daß er sich mit einer anderen Farbe mischt, muß das Ablenkjoch nach hinten gezogen werden.
   - Außerhalb des festgelegten Aufprallpunkts:
     Das Ablenkjoch nach vorne drücken.
   - Innerhalb des festgelegten Aufprallpunkts:
     Das Ablenkjoch nach hinten drücken.
6. Die Rasterrotation auf "0" einstellen. (Das Gerät muß dabei nach Osten ausgerichtet sein.)
7. Die Schrauben der Ablenkspule festziehen.
   Anzugsmoment: 11 kg ± 2 kg.

## ■ CONVERGENCE ADJUSTMENT



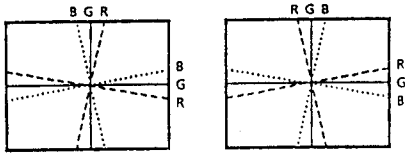




*Figure a.* *Figure b.*

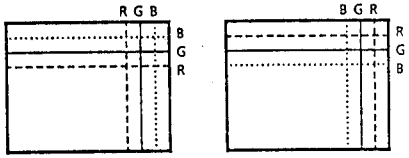



*Figure c.* *Figure d.*

**Adjusting Conditions**

**This adjustment should be performed after the purity magnet adjustment.**

1. Receive "CROSSHATCH PATTERN (Channel OI-2)" signal.
2. Set the Brightness control and Contrast control at MAX position.

**Adjusting Procedures**

STATIC CONVERGENCE

1. Adjust the opening degree of the 4-pole magnet and rotate the magnet to converge red and blue lines.
2. Adjust the opening degree of the 6-pole magnet and rotate the magnet to converge red, blue and green lines.

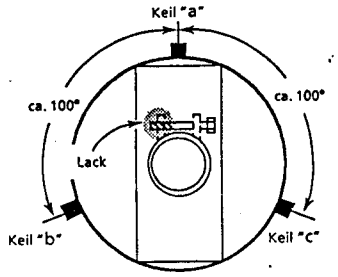
DYNAMIC CONVERGENCE

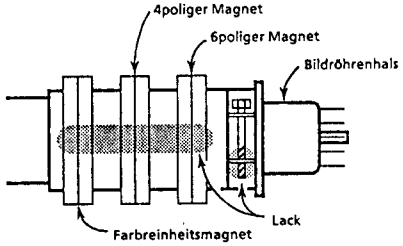
3. Dynamic convergence (convergence of the three colour fields) at the edges of CRT screen is accomplished in the following manner.
   - **Convergence in *Fig. a* :**
     Insert wedge"a" between the deflection yoke and CRT, and tilt the deflection yoke upward until the mis-convergence shown in ***Fig. a*** is corrected.
   - **Convergence in *Fig. b* :**
     Insert wedges "b" and "c" between the deflection yoke and CRT, and tilt the deflection yoke until the mis-convergence shown in ***Fig. b*** is corrected.
   - **Convergence in *Fig. c* :**
     Insert wedge "c" deeply between the deflection yoke and CRT, and tilt the deflection yoke to right until the mis-convergence shown in ***Fig. c*** is corrected.
   - **Convergence in *Fig. d* :**
     Insert wedge "b" deeply between the deflection yoke and CRT, and tilt the deflection yoke to left until the mis-convergence shown in ***Fig. d*** is corrected.
4. Stick the three wedges onto the CRT, and apply glass tapes thereon.
5. Apply lacquer to the deflection yoke screw, magnet unit (made of purity, 4-pole and 6-pole magnets) and magnet unit screw.

After the adjustment, receive either the Red or the Blue signal and check that there is no mixture with the other colour signal.



## ■ KONVERGENZ-EINSTELLUNG



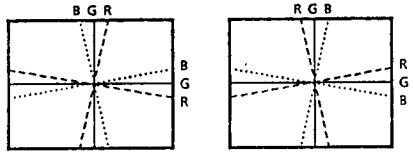




*Abbildung a.* *Abbildung b.*

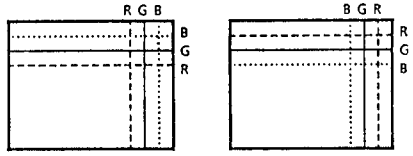



*Abbildung c.* *Abbildung d.*

**Einstellbedingungen**

Diese Einstellung darf erst nach der Einstellung des Farbreinheitsmagneten durchgeführt werden.

1. Das "KREUZMUSTER (Kanal-OI-2)"-Signal empfangen.
2. Die Helligkeits-und Kontrastregler in die MAX-Einstellposition bringen.

**Einstellverfahren**

STATISCHE KONVERGENZ

1. Den Öffnungswinkel des 4poligen Magneten einstellen und den Magneten rotieren, um die roten und blauen Zeilen zu konvergieren.
2. Den Öffnungswinkel des 6poligen Magneten einstellen und den Magneten rotieren, um die roten, blauen und grünen Zeilen zu konvergieren.

DYNAMISCHE KONVERGENZ

3. Die dynamische Konvergenz (Konvergenz der drei Farbfelder) an den Kanten des Bildschirms wird wie folgt erzielt:
   - **Konvergenz in *Abb. a* :**
     Den Keil "a" zwischen Ablenkjoch und Bildschirm einschieben, dann das Ablenkjoch nach oben Kippen, bis die in ***Abb. a*** gezeigte Fehlkonvergenz korrigiert ist.
   - **Konvergenz in *Abb. b* :**
     Die Keile "b" und "c" zwischen Ablenkjoch und Bildschirm einschieben, dann das Ablenkjoch kippen, bis die in ***Abb. b*** gezeigte Fehlkonvergenz korrigiert ist.
   - **Konvergenz in *Abb. c* :**
     Den Keil "c" tief zwischen Ablenkjoch und Bildschirm einschieben, dann das Ablenkjoch nach rechts kippen, bis die in ***Abb. c*** gezeigte Fehlkonvergenz korrigiert ist.
   - **Konvergenz in *Abb. d* :**
     Den Keil "d" tief zwischen Ablenkjoch und Bildschirm einschieben, dann das Ablenkjoch nach links kippen, bis die in ***Abb. d*** gezeigte Fehlkonvergenz korrigiert ist.
4. Die drei Keile am Bildschirm festkleben und mit Glasfolie sichern.
5. Lack auf Ablenkjochschraube, Magneteinheit (bestehend aus 4-und 6poligen Farbreinheitsmagneten) und Magneteinheits-Schraube auftragen.

Nach der Einstellung entweder das rote oder blaue Signal empfangen und Überprüfen, daß keine Mischung mit einem anderen Farbsignal besteht.

## ■ PERFORMANCE CHECK "21-PIN and TELETEXT"

| Adjusting Point | Adjusting Conditions/Procedures |
|---|---|
| ☐ 21-pin connector output | 1) Receive "COLOUR BAR (E-12CH)" signal.<br>(The audio modulation of the color bar signal should be 54%)<br>2) Connect the 21-pin connector checking tool to the TV set.<br>3) Make sure the video output is as specified.<br>(specification: 1Vp-p + 3dB)<br>4) Make sure the audio output is as specified.<br>(specification: 1.4Vp-p + 3dB) |
| ☐ 21-pin connector input | 1) Receive "COLOUR BAR (E-12CH)" signal.<br>2) Connect the 21-pin connector checking tool to the TV set.<br>3) Feed the video signal and see if the TV set works properly.<br>4) Feed the audio signal and see if the TV set works properly.<br>5) Feed the data signal and see if the TV set works properly. |
| ☐ TV / VIDEO selector switch | 1) Receive "COLOUR BAR (E-12CH)" signal.<br>2) Using the TV / VIDEO selector (on the remote control), make sure the picture disappears and the sound is not heard accordingly. |
| ☐ TELETEXT operation | 1) Receive TEXT signal.<br>2) Do the reading, writing, putting in memory and other operations about the text to see if they all function well. |

13

E13

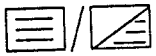
## ■ LEISTUNGSPRÜFUNG VON "21POL. STECKVERBINDER UND TELETEXT-FUNKTION"

| Einstellpunkt | Einstellbedingungen/verfahren |
|---|---|
| ☐ 21POL. Steckverbinder, Ausgang | 1) Farbbalkensignal (E-12CH) empfangen. (Die Audio-Modulation des Farbbalkensignals muß 54% betragen.)<br>2) Das Prüfinstrument für 21POL. Steckverbinder mit dem Fernsehgerät verbinden.<br>3) Sicherstellen, daß das Videoausgangssignal Sollamplitude hat. (Sollamplitude: 1Vss + 3dB)<br>4) Sicherstellen, deß das Audioausgangssignal Sollamplitude hat. (Sollamplitude: 1,4 Vss + 3dB) |
| ☐ 21POL. Steckverbinder, Eingang | 1) Farbbalkensignal(E-12CH) empfangen.<br>2) Das Prüfinstrument für 21POL. Steckverbinder mit dem Fernsehgerät verbinden.<br>3) Das Videosignal zuführen und prüfen, ob das Fernsehgerät einwandfrei arbeitet.<br>4) Das Audiosignel zuführen und prüfen, ob das Fernsehgerät einwandfrei arbeitet.<br>5) Das Datensignal zuführen und prüfen, ob das Fernsehgerät einwandfrei arbeitet. |
| ☐ TV/VIDEO-Wahlschalter | 1) Farbbalkensignal (E-12CH) empfangen.<br>2) Durch Betätigen des TV/VIDEO-Wählers (an der Fernbedienung) sicherstellen, daß das Bild verschwindet und entsprechend keine Tonwiedergabe erfolgt. |
| ☐ TELETEXT-Betrieb | 1) TEXT-Signal empfangen.<br>2) Zur Prüfung auf einwandfreie Funktion Text-Operationen wie Lesen, Schreiben, Abspeichern und weitere durchführen. |

G13

## ■ PERFORMANCE CHECK "TELETEXT"

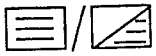
**The basics are the same as for the current Europe-destined models with TEXT function. Note, however, that this model does not have the "Browse" function.**

| Adjusting Point | Adjusting Conditions/Procedures |
|---|---|
| TEXT/MIX  | Change between TEXT and MIX modes. |
| HOLD | Make sure that "HOLD" appears at the header and the screen is held. |
| TOP/BOTTOM | Change between TOP ENLARGED, BOTTOM ENLARGED and NORMAL. |
| PICTURE | The screen will return from TEXT to NORMAL. |
| TIME | Press the TIME key for sub-code instructions. |
| REVEAL | Press the REVEAL key and make sure the hidden characters appear. |
| CANCEL | Receiving the TEXT signal, press the CANCEL key. Make sure the screen returns to NORMAL. Using the numeric keys, bring up the text page number request menu.<br>Capture the request page number, and the selected page number wil appear at the top left on the screen. |
| RESET | Bring back the TV mode.<br>Set the unit to LIST/FLOF-selected mode. |
| FLOF/LIST | Using the FLOF/LIST mode selector, make sure the two modes are properly selected. In the LIST mode, "L" appears at the bottom left on the screen. |
| RED R | Press the RED key, and the page number menu (boxed in red at the bottom of the screen) will be called up and displayed. |

E14

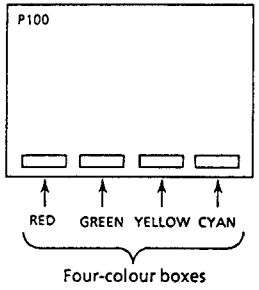
## ■ LEISTUNGSPRÜFUNG DER TELETEXT-FUNKTION

**Die grundlegenden Merkmale sind mit den für Europa bestimmten Modellen mit TEXT-Funktion identisch. Zubeachten ist allerdings, daß dei diesem Modell die "Browse"-Funktion fehlt.**

| Einstellpunkt | Einstellbedingungen/verfahren |
|---|---|
| TEXT/MISCHEN  | Umschalten zwischen den Betriebsarten TEXT/MISCHEN |
| HALT | Sicherstellen, daß die Meldung "HOLD" in der oberen Reihe erscheint und die Teletext-Information auf dem Bildschirm festgehalten wird. |
| FORMAT | Wechsel zwischen OBERE HÄLFTE VERGRÖSSERT, UNTERE HÄLFTE VERGRÖSSERT und NORMAL. |
| BILD | Umschaltung von der Teletext-Anzeige auf regulären Fernsehempfang. |
| ZEIT | Durch Drücken der TIME-Taste Zeitcode-Anweisungen aufrufen. |
| ERKENNUNG | Die REVEAL-Taste drücken und sicherstellen, daß die versteckten Zeichen auf dem Bildschirm erscheinen. |
| LÖSCHEN | Beim Empfang des TEXT-Signals die CANCEL-Taste drücken und sicherstellen, daß wieder auf Normalbetrieb umgeschaltet wird.<br>Mit den Zifferntasten das Seitennummernmenü aufrufen.<br>Die gewählte Seitennummer erscheint links oben auf dem Bildschirm. |
| RÜCKSTELLUNG | Das Gerät wieder auf regulären Fernsehempfang stellen.<br>Nun das Gerät auf LIST/FLOF-Wahlbetrieb stellen. |
| FLOF/LIST | Mit dem FLOF/LIST-Wähler sicherstellen, daß die beiden Betriebsarten ordnungsgemäß gewählt werden. In der LIST-Betriebsart erscheint "L" unten links auf dem Bildschirm. |
| ROT-EINRAHMUNG R | Die RED-Taste drücken, worauf das Seitennummernmenü aufgerufen und (am unteren Bildschirmrand rot eingerahmt) angezeigt wird. |

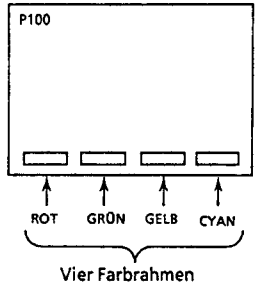
G14

## ■ PERFORMANCE CHECK "TELETEXT" (Continued)

| Adjusting Point | Adjusting Conditions/Procedures |
|---|---|
| GREEN<br>G | Press the GREEN key, and the page number menu (boxed in green at the bottom of the screen) will be called up and displayed. |
| YELLOW<br>Y | Press the YELLOW key, and the page number menu (boxed in yellow at the bottom of the screen) will be called up and displayed. |
| CYAN<br>Cy | Press the CYAN key, and the page number menu (boxed in cyan at the bottom of the screen) will be called up and displayed. |
| STORE<br>S | Keep the STORE key down for about 1 second, and the 4-color boxes at the bottom of the screen will turn whitish momentarily and back to their respective colors.<br>By doing this, the page numbers appearing in these boxes are put in memory. Once memorized, the page numbers are kept displayed in the boxes, even if the power is turned off and on again. This memory function is available for up to 16 programs; 15 for channels 1 through 15 and 1 for any of channels 16 through 39 plus AV. Up to 4 page numbers can be put in memory for each program number.<br>(This function works in the LIST mode.)<br>  |
| INDEX<br>I | (LIST mode)<br>Press the INDEX key, and the page numbers stored in memory will be displayed in their respective 4-colour boxes and the red-boxed page numbers be requested. On the screen, the page data specified in the red box are displayed.<br><br>(FLOF mode)<br>A menu's page request is made. |



## ■ LEISTUNGSPRÜFUNG DER TELETEXT-FUNKTION (Fortsetzung)

| Einstellpunkt | Einstellbedingungen/verfahren |
|---|---|
| GRÜN-Einrahmung<br>G | DieGREEN-Taste drücken, worauf das Seitennummernmenü aufgerufen und (am unteren Bildschirmrand grün eingerahmt) angezeigt wird. |
| GELB-Einrahmung<br>Y | Die YELLOW-Taste drüchen, worauf das Seitennummernmenü aufgerufen und (am unteren Bildschirmrand gelb eingerahmt) angezeigt wird. |
| CY-Einrahmung<br>Cy | Die CYAN-Taste drücken, worauf das Seitennummernmenü aufgerufen und (am unteren Bildschirmrand mit Cyan-Einrahmung) angezeigt wird. |
| SPEICHERN<br>S | Die STORE-Taste ca. 1 Sekunde lang gedrückthalten, worauf die vier Farbrahmen am unteren Bildschirmrand kurz auf weiß umschlagen und dann wieder in den ursprünglichen Farben erscheinen.<br>Dadurch werden die eingerahmten Seitennummern in den Speicher gebracht. Auch nach der Abspeicherung bleibt die Seitenanzeige in den Rahmen selbst dann bestehen, wenn die Stromversorgung aus- und wieder eingeschaltet wird, Diese Speicherfunktion ist für 16 Programme ausgelegt; 15 für die Kanäle 1 bis 15 und 1 für jeden der Kanäle von 16 bis 39 plus AV. Für jede Programmnummer lassen sich bis zu vier Seitennummern abspeichern.<br>(Diese Funktion ist im LIST-Betrieb aktivierbar.)<br>  |
| INDEX<br>I | (LIST-Betriebsart)<br>Die INDEX-Taste drücken, worauf die abgespeicherten Seitennummern in den jeweiligen Farbrahmen angezeigt und die Nummern im roten Rahmen angefordert werden.<br>Auf dem Bildschirm erscheinen die Daten der rot eingerahmten Seitennummer.<br><br>(FLOF-Betriebsart)<br>Anforderung einer Menüseite |

# SOLID STATE DEVICE BASE DIAGRAM / GRUNDDIAGRAM DER FESTKÖRPEREINRICHTUNG

## TOP VIEW / AUFSICHT

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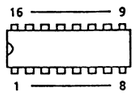
CAT24C02P

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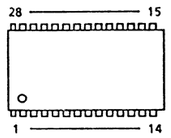


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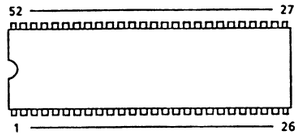


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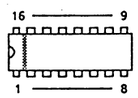


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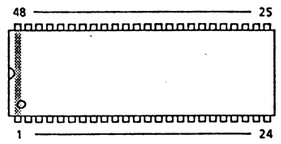


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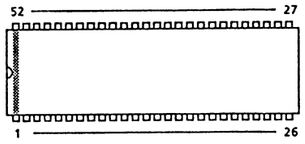
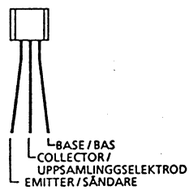



TDA8362

## SIDE VIEW / SEITENANSECHT

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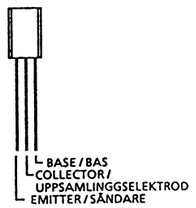


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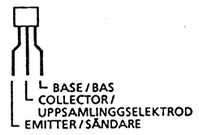


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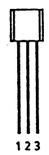


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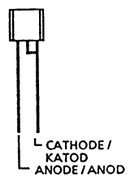


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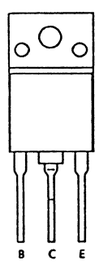


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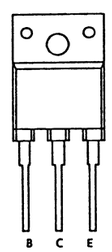


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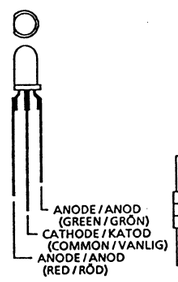


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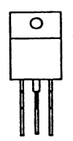

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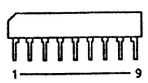


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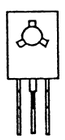

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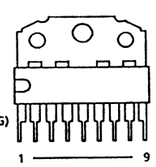


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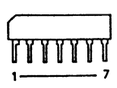


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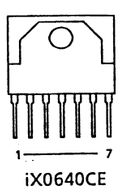
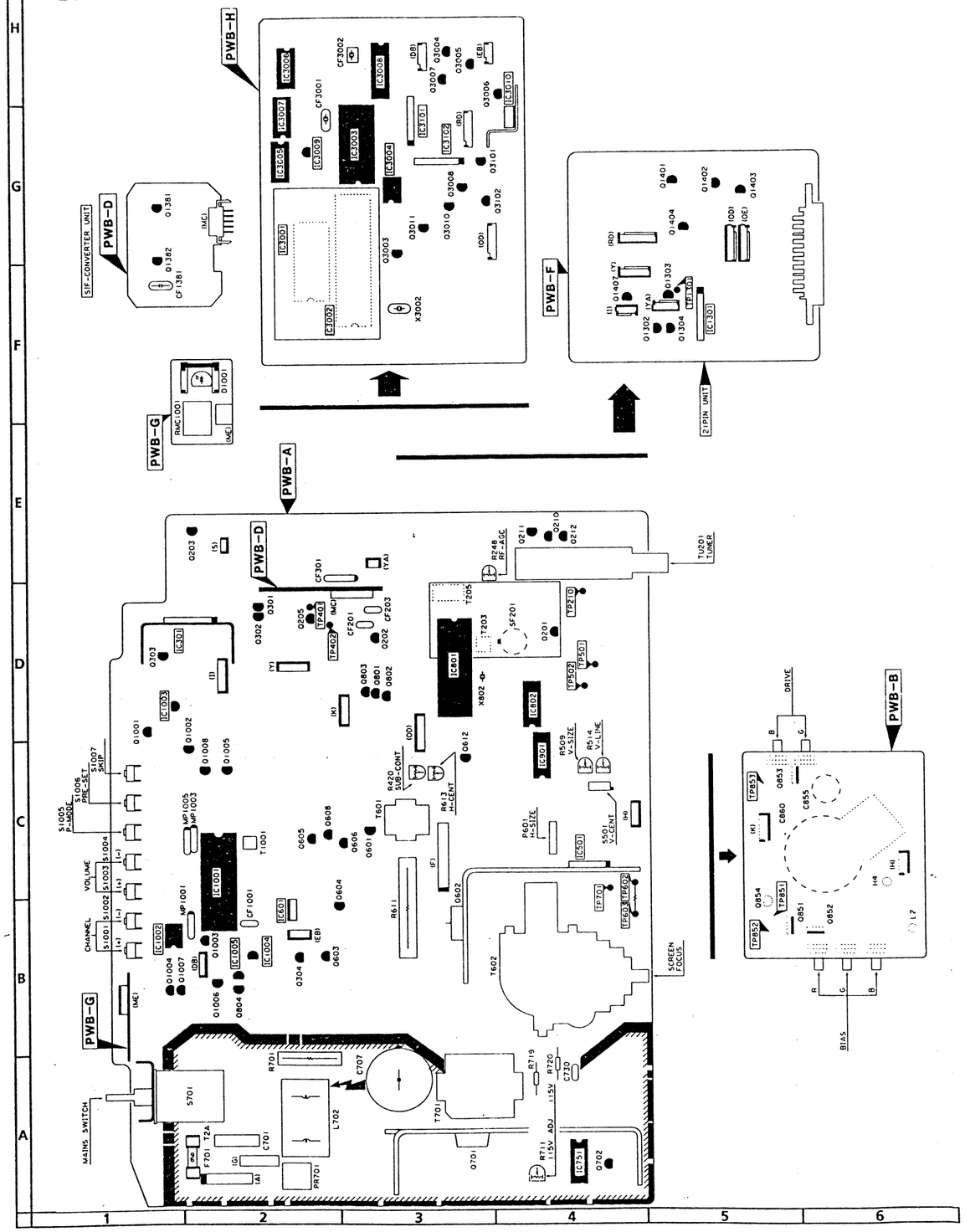


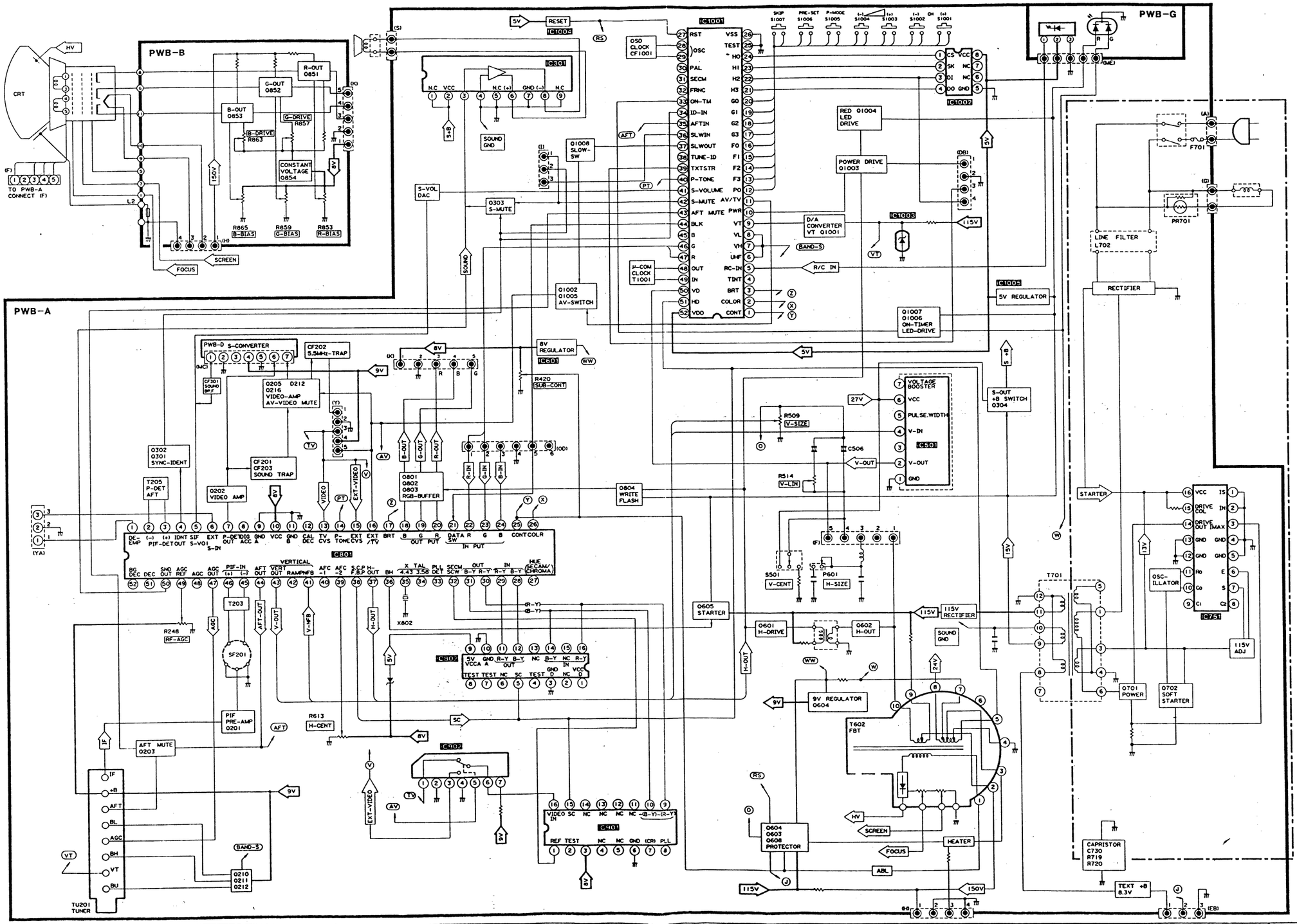

iX0640CE



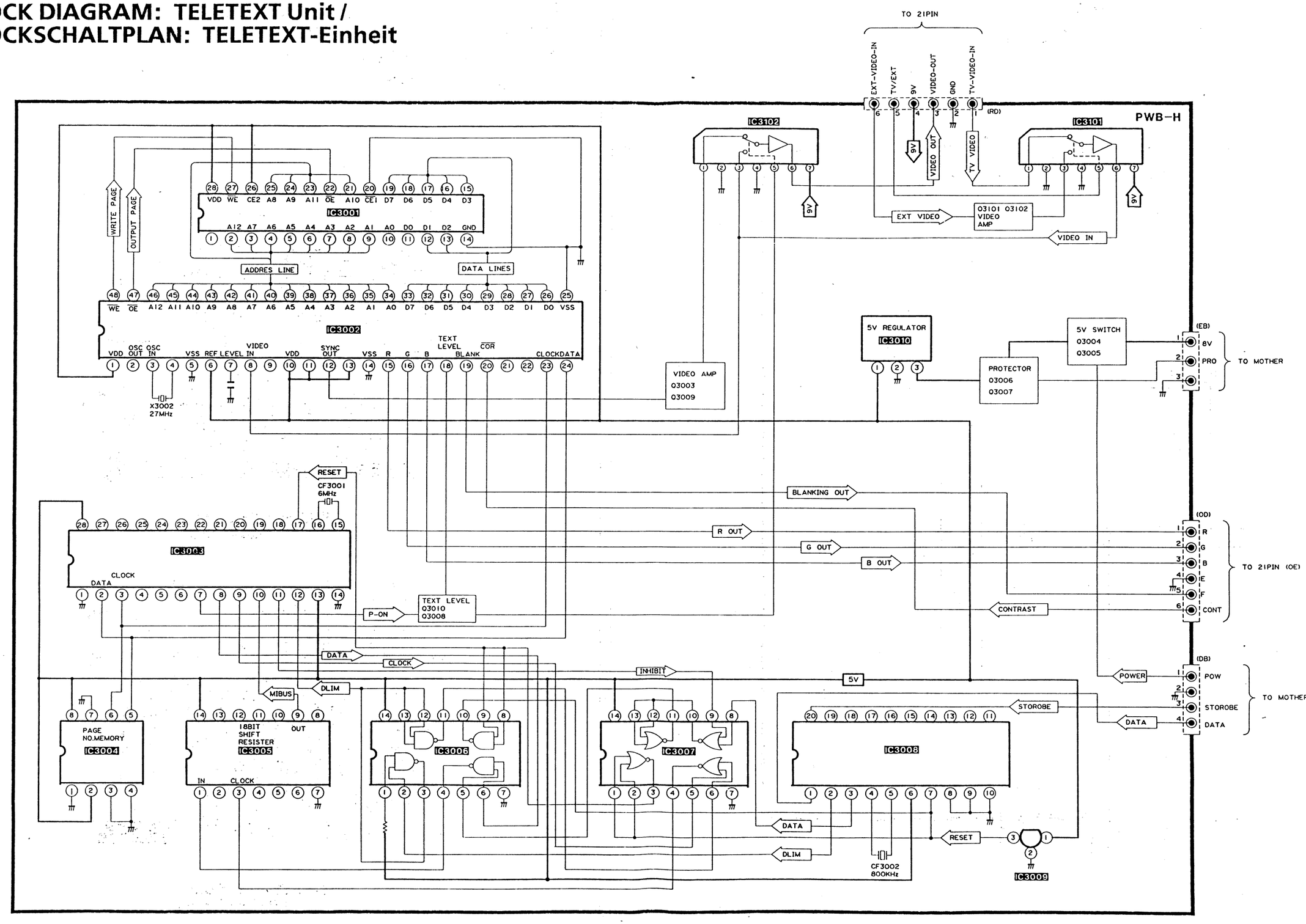
# CHASSIS LAYOUT / CHASSISANORDNUNGSPLAN



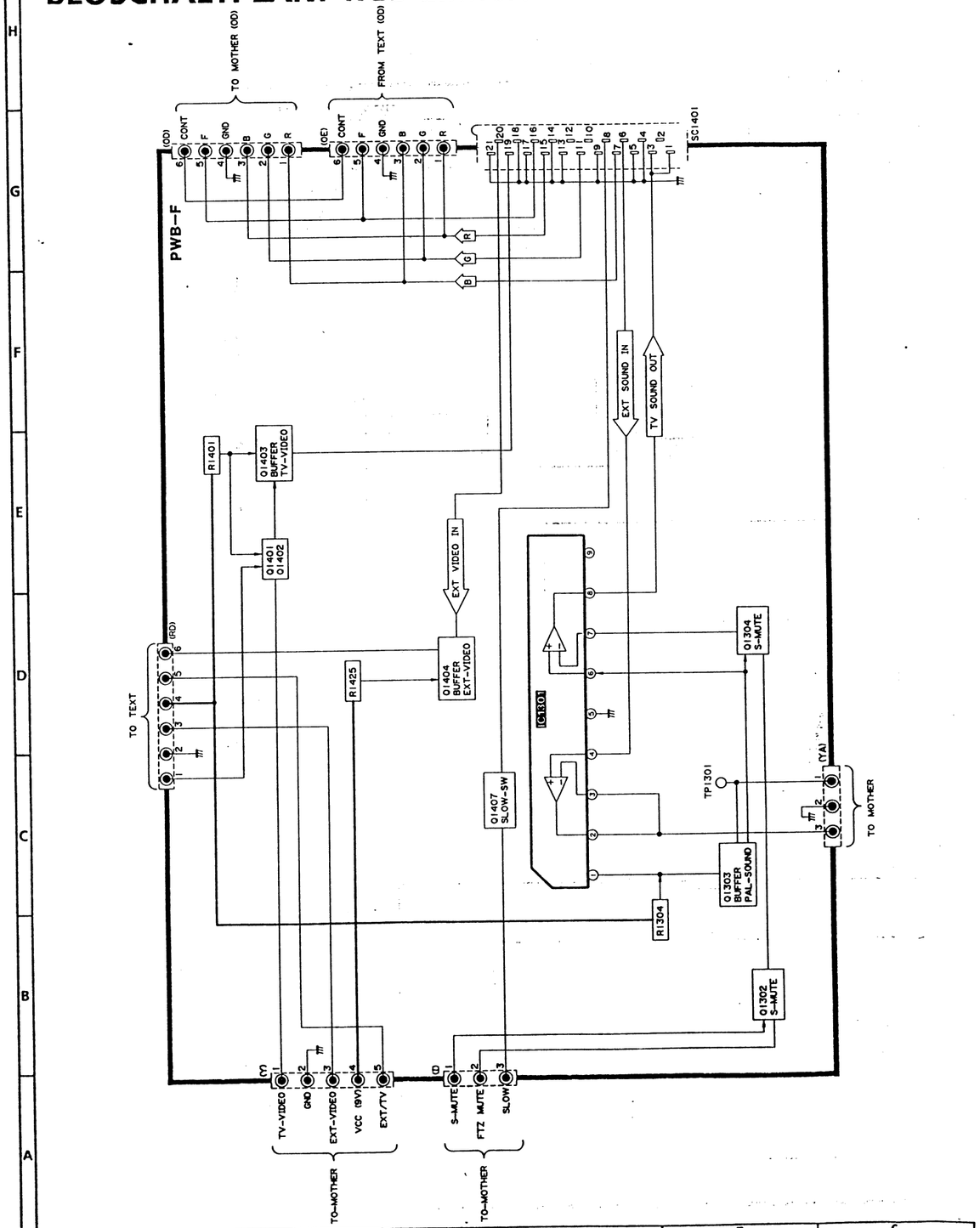
# BLOCK DIAGRAM: Main Unit / BLOCKSCHALTPLAN: Haupt-Einheit



# BLOCK DIAGRAM: TELETEXT Unit / BLOCKSCHALTPLAN: TELETEXT-Einheit



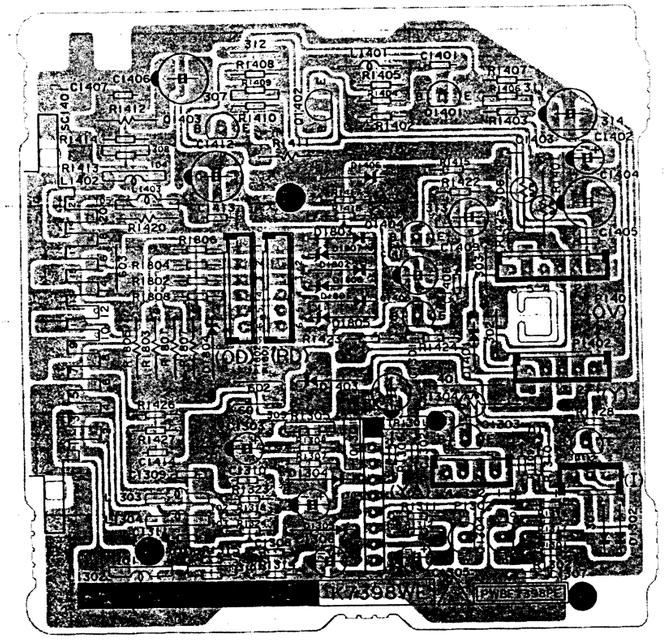
# BLOCK DIAGRAM: RGB Unit / BLOSCHALTPLAN: RGB-Einheit



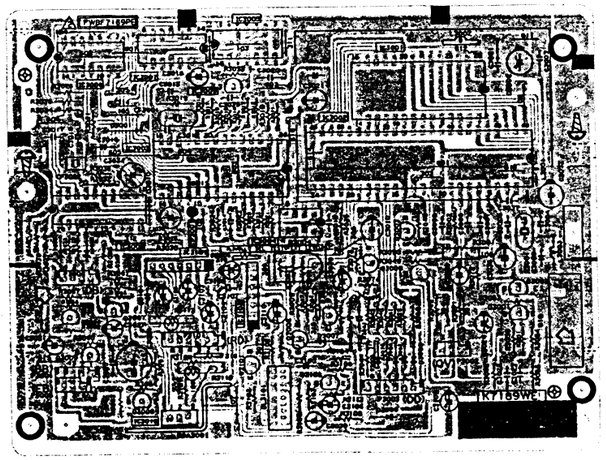



# PRINTED WIRING BOARD ASSEMBLIES
**(All the PWBs here are shown as viewed from their wiring sides.)**

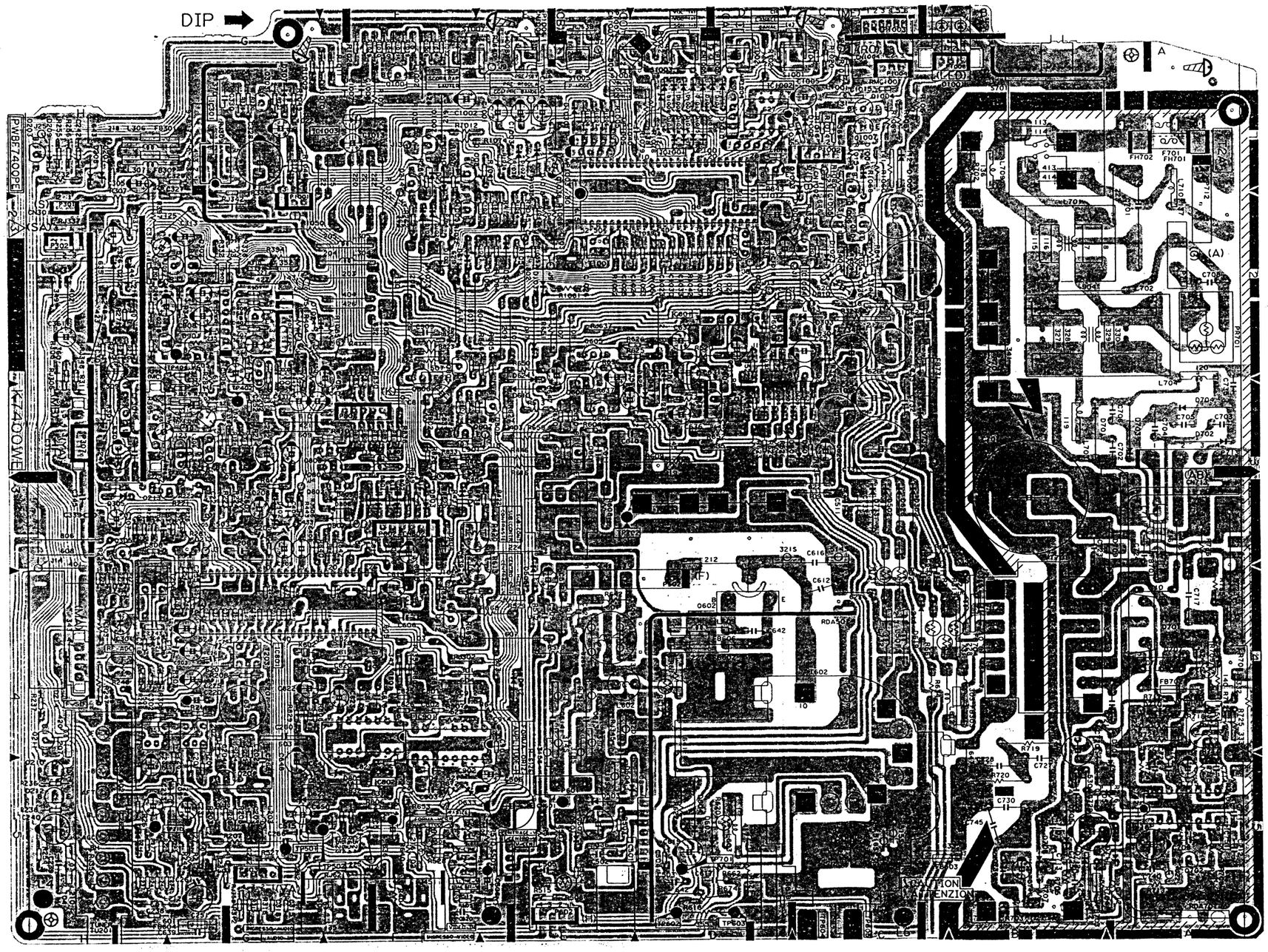
# LEITERPLATTENEINHEITEN
**(Alle hier gezeigten Platten sind von der Leiterbahnseite aus gesehen.)**



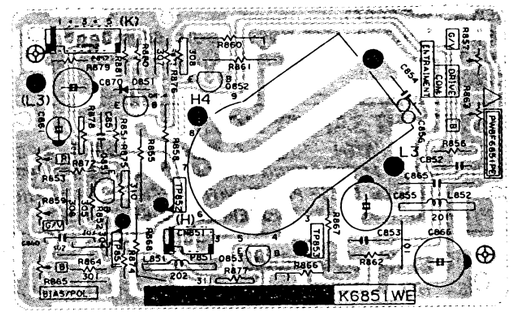
**PWB-F: RGB Unit / RGB-Einheit**



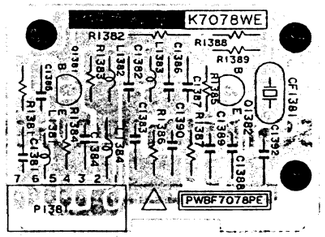
**PWB-H: TELETEXT Unit / TELETEXT-Einheit**



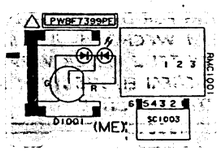

PWB-A: Mother Unit / Hauptplatine




PWB-B: CRT Socket Unit / Bildröhrenplatine




PWB-D: SIF Converter Unit / SIF-Umwandler




PWB-G: Remote Control Receiver Unit / Fernbedienungsempfänger

# DESCRIPTION OF SCHEMATIC DIAGRAM

### SAFETY NOTE:
1. DISCONNECT THE AC PLUG FROM THE AC OUTLET BEFORE REPLACEING PARTS.
2. SEMICONDUCTOR HEAT SINKS SHOULD BE REGARDED AS POTENTIAL SHOCK HAZARDS WHEN THE CHASSIS IS OPERATING.

### IMPORTANT SAFETY NOTICE:
PARTS MARKED WITH "⚠" ( ▒▒▒▒▒▒ ) ARE IMPORTANT FOR MAINTAINING THE SAFETY OF THE SET. BE SURE TO REPLACE THESE PARTS WITH SPECIFIED ONES FOR MAINTAINING THE SAFETY AND PERFOMANCE OF THE SET.

### SERVICE PRECAUTION:
THE AREA ENCLOSED BY THIS LINE ( ▬ ▪ ▬ ) IS DIRECTLY CONNECTED WITH AC MAINS VOLTAGE.
WHEN SERVICING THE AREA, CONNECT AN ISOLATING TRANSFORMER
BETWEEN TV RECEIVER AND AC LINE TO ELIMINATE HAZARD OF ELECTRIC SHOCK.

### NOTE:
1. The unit of resistance "ohm" is omitted (K = 1000 ohms, M = Megaohm).
2. All resistors are 1/8 watt, unless otherwise noted.
3. All capacitors are μF, unless otherwise noted (P = μμF).

### VOLTAGE MEASUREMENT CONDITIONS:
1. Voltages in parenthesis measured with no Signal.
2. Voltages without parenthesis measured with 3mV B & W or Colour-Signal.
3. All the voltages in each point are measured with VTVM.

### WAVEFORM MEASUREMENT CONDITIONS:
1. Colour bar generator signal of 2.3 V peak to peak applied at Base of Video Buffer Amp. Q202.
2. Approximately 4.0 V AGC bias.

**CAUTION:**
**This circuit diagram is original one, therefore there may be a slight difference from yours.**

# BESCHREIBUNG DES SCHEMATISCHEN SCHALTPLANS

### SICHERHEITSANMERKUNGEN:
1. VOR DEM AUSWECHSELN VON TEILEN MUSS UNBEDINGT NETZSTECKER AUS DER NETZSTECKDOSE GEZOGEN WERDEN.
2. DIE WARMEABLEITER DER HALBLEITER SOLLTEN BEIM BETRIEB DES CHASSIS ALS MÖGLICHE URSACHEN VON GEFÄHRLICHEN ELEKTRISCHEN SCHLÄGEN BETRACHTET WERDEN.

### WICHTIGE SICHERHEITSANMERKUNGEN:
MIT "⚠" ( ▒▒▒▒▒▒ ) BEZEICHNETEN TEILE SIND BESONDERS WICHTIG FÜR DIE AUFRECHTERHALTUNG DER SICHERHEIT. BEIM WECHDIESER TEILE SOLLTEN DIE VORGESCHRIEBENEN TEILE IMMER VERWENDET WERDEN, UM SOWOHL DIE SICHERHEIT ALS AUCH DIE LEISTUNG DES GERÄTES AUFRECHTZUERHALTEN.

### VORSICHTSMASSREGEL BEI DER WARTUNG:
DAß MIT DIESER LINIE ( ▬ ▪ ▬ ) EINGEFAßTE GEBIET IST DIREKT AN DER WECHSELSPANNUNG ANGESCHLOSSEN. BEI DER WERTUNG DES GEBIETES EINEN TRENNTRANSFORMATOR ZWISCHEN FERNSEHGERÄT SCHLAGE ZU VERMEIDEN.

### ANMERKUNG:
1. Der Widerstandswert "Ohm" wurde in den Plän ausgelassen (k = 1000 Ohms, M = Megaohm).
2. Falls nicht anders angegeben, handlet es sich bei den Widerstanden um 1/8 Watt-Auührunge.
3. Falls nicht anders angegeben, handelt es sich bei den Kondensatoren um μF-Typen (p = μμF).

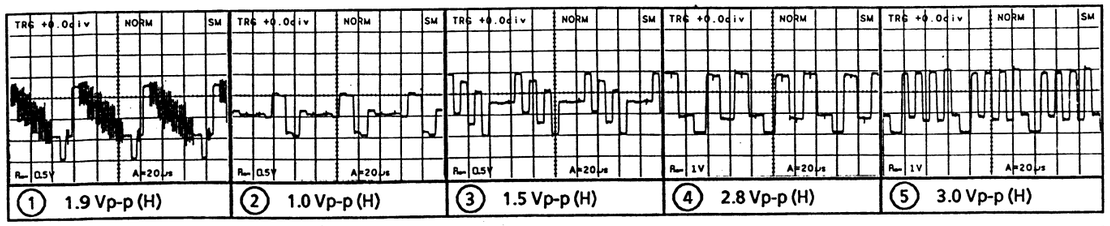
### SPANNUNGSMESSUNGEN:
1. In Klammen eingeschlossene Spannungswerte werden ohne Signal gemessen.
2. Nicht in Klammern eingeschlossene Spannungswerte werden mit einem 3mV S/W-oder Farbsignal gemessen.
3. Alle Spannungswerte werden mit einem Va-SEL kuumöhre-Volt-meter gemessen.

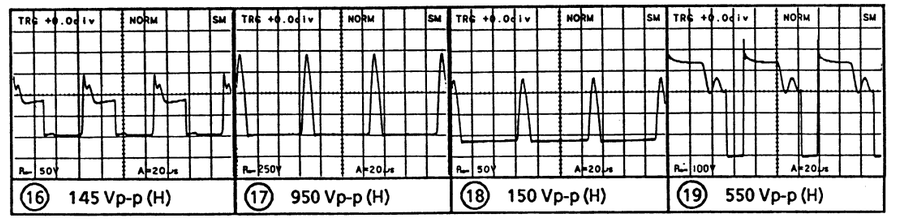
### SIGNALFORMMESSUNGEN:
1. Das Farbbalkensignal von 2,3V Spitze zu Spitze wird der Basis des Video-Pufferverstärkers Q202 zugeleitet.
2. Ungefähr 4,0V AGC-Vorspannung.

**ACHTUNG:**
**bei diesem Schaltplan handelt es sich um den ursprünglichen. Esönnen daher geringfügige Unterschiede zu dem Ihrem bestehen.**

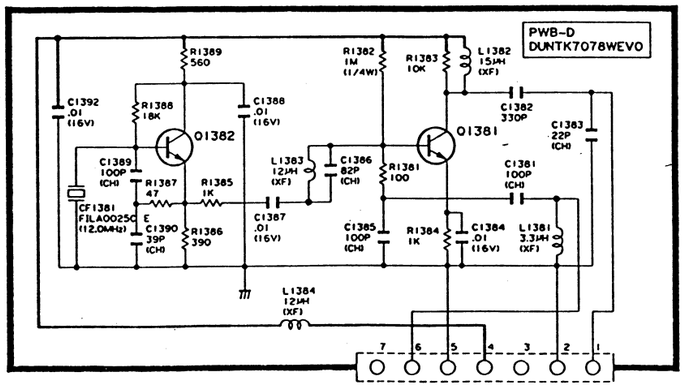


# WAVEFORMS / WELLENFORMEN

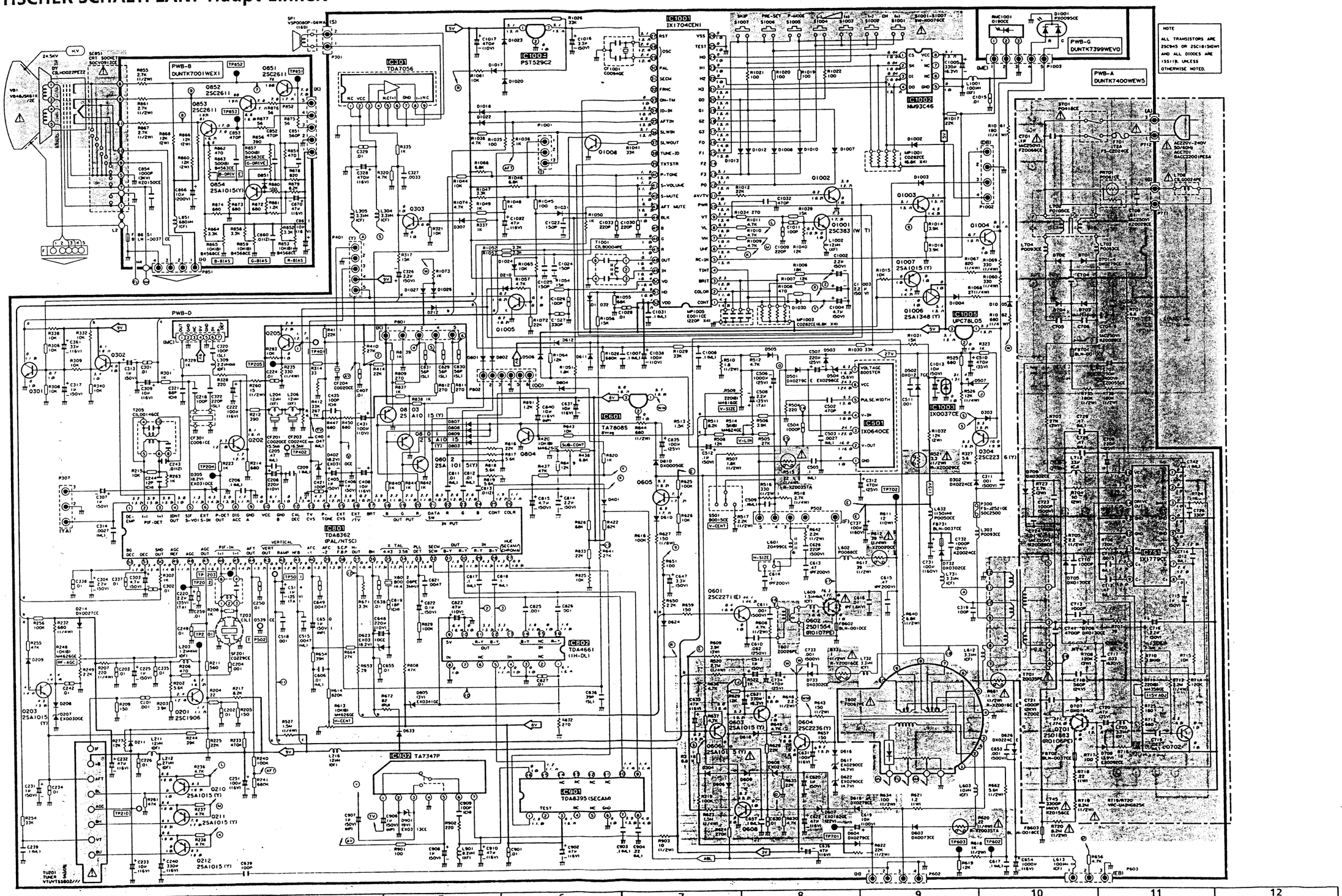

① 1.9 Vp-p (H)
② 1.0 Vp-p (H)
③ 1.5 Vp-p (H)
④ 2.8 Vp-p (H)
⑤ 3.0 Vp-p (H)
⑥ 2.9 Vp-p (H)
⑦ 90 Vp-p (H)
⑧ 78 Vp-p (H)
⑨ 86 Vp-p (H)
⑩ 6.0 Vp-p (H)
⑪ 1.4 Vp-p (V)
⑫ 0.8 Vp-p (H)
⑬ 10.6 Vp-p (H)
⑭ 1.6 Vp-p (V)
⑮ 48 Vp-p (V)



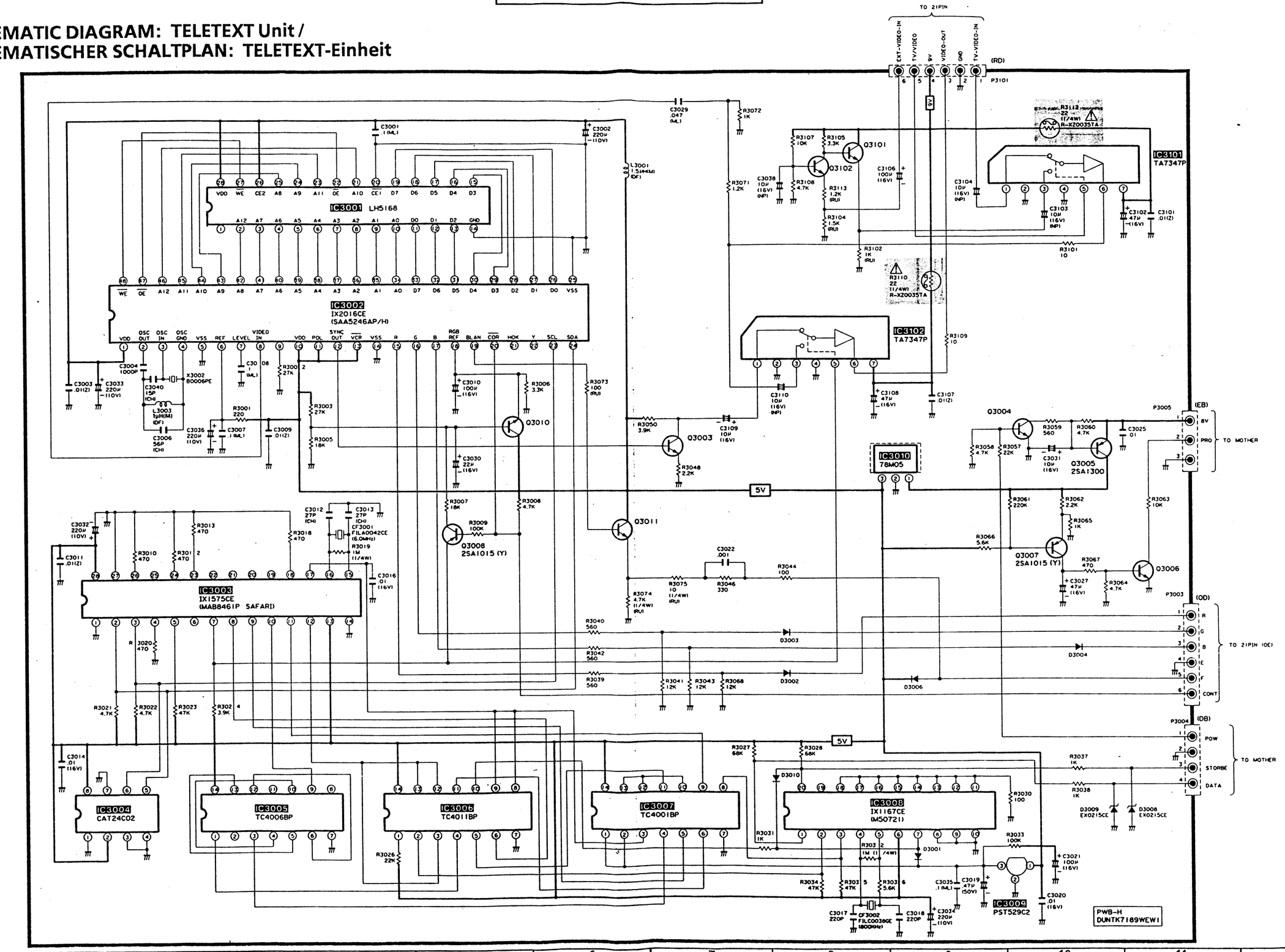

## SCHEMATIC DIAGRAM: SIF Converter / SCHEMATISCHER SCHALTPLAN: SIF-Umwandler



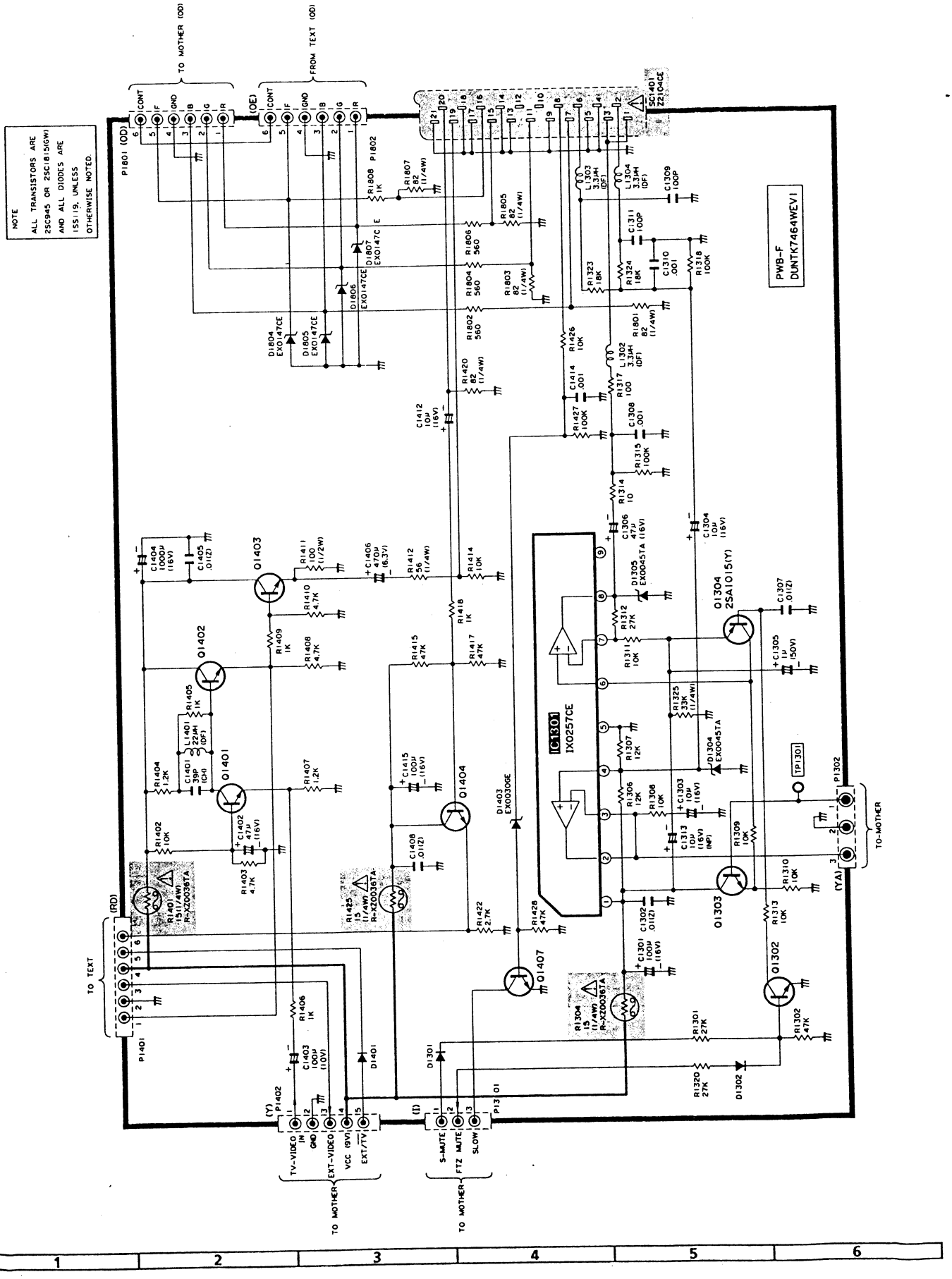
# SCHEMATIC DIAGRAM: Main Unit /
# SCHEMATISCHER SCHALTPLAN: Haupt-Einheit



# SCHEMATIC DIAGRAM: TELETEXT Unit /
# SCHEMATISCHER SCHALTPLAN: TELETEXT-Einheit

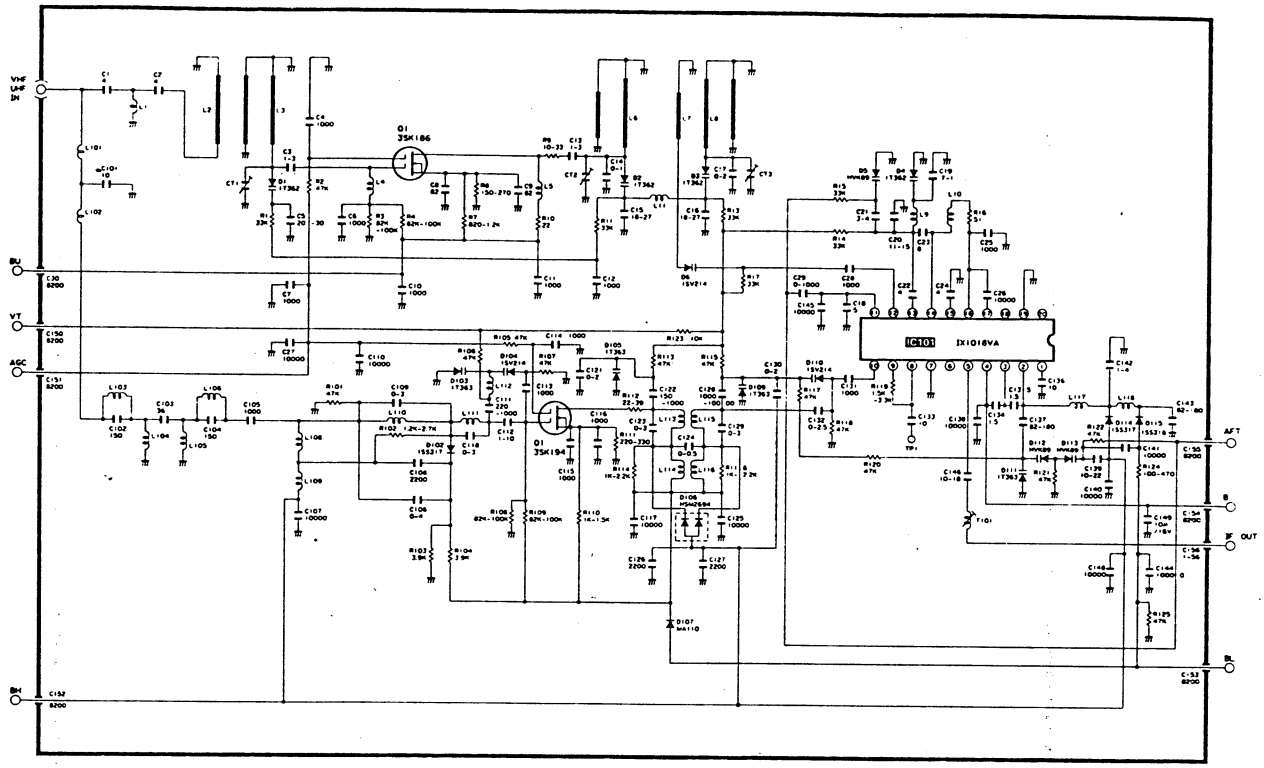


# SCHEMATIC DIAGRAM: RGB Unit /
# SCHEMATISCHER SCHALTPLAN: RGB-Einheit



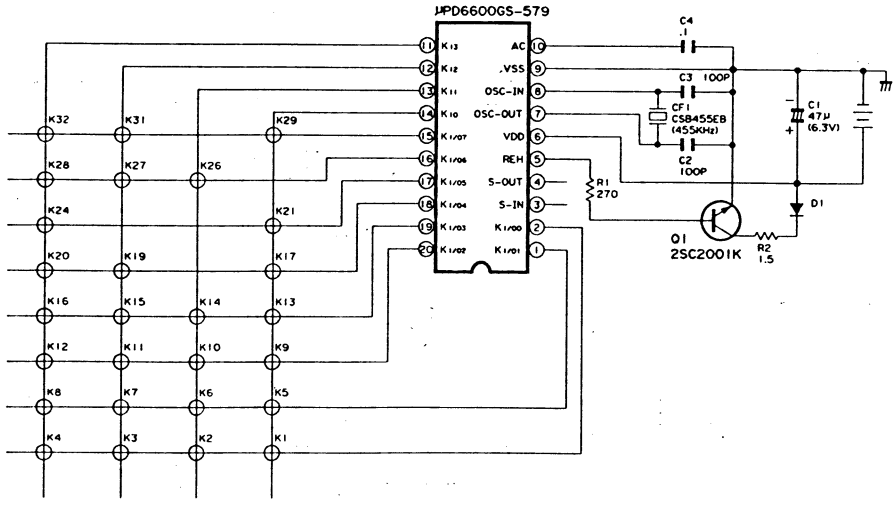
# TUNER

⚠ VTUVTS602//



# INFRARED REMOTE CONTROL UNIT / INFRAROTFERNBEDIENUNGSEINHEIT

RRMCG0833PESA




| KEY NO | FUNCTION |
|---|---|
| K32 | DOWN |
| K31 | UP |
| K30 | |
| K29 | MODE |
| K28 | 30 + |
| K27 | 20 + |
| K26 | 10 + |
| K25 | |
| K24 | F.B. |
| K23 | |
| K22 | |
| K21 | CALL |
| K20 | OFF |
| K19 | ON |
| K18 | |
| K17 | MUTE |
| K16 | POWER |
| K15 | VOL |
| K14 | VOL |
| K13 | TV/VIDEO |
| K12 | CH |
| K11 | CH |
| K10 | 0 |
| K9 | 9 |
| K8 | 8 |
| K7 | 7 |
| K6 | 6 |
| K5 | 5 |
| K4 | 4 |
| K3 | 3 |
| K2 | 2 |
| K1 | 1 |

# PARTS LIST

## PARTS REPLACEMENT

Replacement parts which have these special safety characteristics identified in this manual: electrical components having such features are identified by "⚠" in the Replacement Parts Lists. The use of a substitute replacement part which does not have the same safety characteristics as the factory recommended replacement parts shown in this service manual may create shock, fire or other hazards.

### "HOW TO ORDER REPLACEMENT PARTS"

To have your order filled promptly and correctly, please furnish the following informations.

1. MODEL NUMBER
2. REF. NO.
3. PART NO.
4. DESCRIPTION
5. CODE
6. QUANTITY

MARK ★: SPARE PARTS-DELIVERY SECTION

# ERSATZTEILLISTE

## AUSTAUSCH VON TEILEN

Ersatzteile, die besondere Sicherheitseigenschften haben, sind in dieser Anleitung markiert. Elektrische Komponenten mit solchen Eigenshaften sind in den Ersatzteil durch "⚠" gekennzeichnet.
Der Gebrauch von Ersatzteilen, die nicht deselben Sicherheitseigenschaften haben wie die vom Hersteller empfohlenen ud in der Bedienungsanleitung angegebenen, können zur Ursache von Blitzeinschlägen, Bränden und anderen Gefahren werden.

### "WIE MAN ERSATSTEILE BESTELLT"

Damit Ihre Bestellung promt und korrekt ausgeführt wird, geben Sie bitte folgende Informationen.

1. MODELL NR.
2. REF. NR.
3. ERSATZTEIL NR.
4. BESCHREIBUNG
5. KODE
6. QUANTITÄT

MARKIERUNG ★: ERSATZTEILE-LIEFERUNG

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|

## PICTURE TUBE

| | | | | |
|---|---|---|---|---|
| ⚠VB1 | VB48JSK61X/2E | R | CRT | CF |
| ⚠DY1 | RCiLH0022PEZZ | R | Deflection Yoke | BH |
| ⚠L708 | RCiLG0024PEZZ | R | Degaussing (ADG) Coil | AW |
| | LHLDC0001PEZZ | R | ADG Coil Holder, ×4 used | AC |
| | PMAGF3003CEZZ | J | Purity Magnet | AK |
| | PSPAG0003PEZZ | R | Wedge, Rubber, ×3 used | AD |
| | MSPRT0001PEFJ | R | CRT Spring | AC |

## PRINTED WIRING BOARD ASSEMBLIES

***( NOT REPLACEMENT ITEM )***

| | | | | |
|---|---|---|---|---|
| PWB-A | DUNTK7400WEW5 | - | Mother Unit (with PWB-D) | — |
| PWB-B | DUNTK7001WEX1 | - | CRT Socket Unit | — |
| PWB-C | —— *Not used* —— | | | |
| PWB-D | DUNTK7078WEV0 | - | SIF Converter Unit | — |
| PWB-E | —— *Not used* —— | | | |
| PWB-F | DUNTK7464WEV1 | - | RGB Unit | — |
| PWB-G | DUNTK7399WEV0 | - | Remote Control Receiver Unit | — |
| PWB-H | DUNTK7189WEW1 | - | TELETEXT Unit | — |

## PWB-A DUNTK7400WEW5
## MOTHER UNIT

### TUNER

***NOTE: THE PARTS HERE SHOWN ARE SUPPLIED AS AN ASSEMBLY BUT NOT INDEPENDENTLY.***

| | | | | |
|---|---|---|---|---|
| ⚠TU201 | VTUVTSS6O2/// | J | Tuner, VHF/UHF | BK |

### INTEGRATED CIRCUITS

| | | | | |
|---|---|---|---|---|
| IC301 | VHiTDA7052/-1 | J | Audio Output | AL |
| IC501 | RH-iX0640CEZZ | J | Vertical Output | AK |
| IC601 | VHiTA7808S/-1 | J | 8V Regulator | AD |
| ⚠IC751 | RH-iX1779CEZZ | J | Power Regulator | AR |
| IC801 | VHiTDA8362/2E | J | Video/Chroma | BA |
| IC802 | VHiTDA4661/-1 | J | 64μsec Baseband DL | AS |
| IC901 | VHiTDA8395/-1 | J | SECAM Decoder | AY |
| IC902 | VHiTA7347P/-1 | J | | AG |
| IC1001 | RH-iX1704CEN1 | J | Microprocessor | AZ |
| IC1002 | VHiNM93C46/-1 | J | | AG |
| IC1003 | RH-iX0037CEZZ | J | Zener IC | AF |
| IC1004 | VHiPST529C2-1 | J | Reset Switch | AD |
| IC1005 | VHiUPC78L05-4 | J | 5V Regulator | AD |

### TRANSISTORS

| | | | | |
|---|---|---|---|---|
| Q201 | VS2SC1906//1E | J | 2SC1906 | AC |
| Q202 | VS2SC945AP/-1 | J | 2SC945A(P) | AB |
| Q203 | VS2SA1015Y/1E | J | 2SA1015(Y) | AC |
| Q205 | VS2SC945AP/-1 | J | 2SC945A(P) | AB |
| Q210 | VS2SA1015Y/1E | J | 2SA1015(Y) | AC |
| Q211 | VS2SA1015Y/1E | J | 2SA1015(Y) | AC |

# PWB-A DUNTK7400WEW5
## MOTHER UNIT (Continued)

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| **TRANSISTORS (Continued)** | | | | |
| Q212 | VS2SA1015Y/1E | J | 2SA1015(Y) | AC |
| Q216 | VS2SC945AP/-1 | J | 2SC945A(P) | AB |
| Q301 | VS2SC945AP/-1 | J | 2SC945A(P) | AB |
| Q302 | VS2SC945AP/-1 | J | 2SC945A(P) | AB |
| Q303 | VS2SC945AP/-1 | J | 2SC945A(P) | AB |
| Q304 | VS2SC2236Y/-1 | J | 2SC2236(Y) | AD |
| Q601 | VS2SC2271E/-1 | J | 2SC2271 | AD |
| ⚠Q602 | VS2SD1554//1E | J | 2SD1554 | AL |
| ⚠Q603 | VS2SA1015Y/1E | J | 2SA1015(Y) | AC |
| Q604 | VS2SC2236Y/-1 | J | 2SC2236(Y) | AD |
| Q605 | VS2SC945AP/-1 | J | 2SC945A(P) | AB |
| ⚠Q606 | VS2SA1015Y/1E | J | 2SA1015(Y) | AC |
| ⚠Q608 | VS2SC945AP/-1 | J | 2SC945A(P) | AB |
| ⚠Q701 | VS2SD1883//-1 | J | 2SD1883 | AL |
| ⚠Q702 | VS2SC945AP/-1 | J | 2SC945A(P) | AB |
| Q801 | VS2SA1015Y/1E | J | 2SA1015(Y) | AC |
| Q802 | VS2SA1015Y/1E | J | 2SA1015(Y) | AC |
| Q803 | VS2SA1015Y/1E | J | 2SA1015(Y) | AC |
| Q804 | VS2SC945AP/-1 | J | 2SC945A(P) | AB |
| Q1001 | VS2SC383-WT-1 | J | 2SC383(WT) | AE |
| Q1002 | VS2SC945AP/-1 | J | 2SC945A(P) | AB |
| Q1003 | VS2SC945AP/-1 | J | 2SC945A(P) | AB |
| Q1004 | VS2SC945AP/-1 | J | 2SC945A(P) | AB |
| Q1005 | VS2SC945AP/-1 | J | 2SC945A(P) | AB |
| Q1006 | VS2SA1348//-1 | J | 2SA1348 | AB |
| Q1007 | VS2SA1015Y/1E | J | 2SA1015(Y) | AC |
| Q1008 | VS2SC945AP/-1 | J | 2SC945A(P) | AB |
| **DIODES** | | | | |
| D207 | RH-EX0030GEZZ | J | Zener Diode | AB |
| D208 | VHD1SS119//1E | J | 1SS119 | AA |
| D209 | VHD1SS119//1E | J | 1SS119 | AA |
| D210 | VHD1SS119//1E | J | 1SS119 | AA |
| D211 | VHD1SS119//1E | J | 1SS119 | AA |
| D212 | VHD1SS119//1E | J | 1SS119 | AA |
| D214 | RH-DX0027CEZZ | J | | AE |
| D302 | RH-DX0224CEZZ | J | RU3AMV1 | AB |
| D303 | VHD1SS119//1E | J | 1SS119 | AA |
| ⚠D304 | VHD1SS119//1E | J | 1SS119 | AA |
| D305 | RH-EX0310CEZZ | J | Zener Diode, 8.2V | AA |
| D307 | VHD1SS119//1E | J | 1SS119 | AA |
| D401 | VHD1SS119//1E | J | 1SS119 | AA |
| D402 | RH-EX0310CEZZ | J | Zener Diode, 8.2V | AA |
| D501 | RH-DX0279CEZZ | J | 1N4005 | AB |
| D502 | RH-DX0127CEZZ | J | 1S5295G | AC |
| D503 | VHD1SS119//1E | J | 1SS119 | AA |
| D504 | RH-EX0298CEZZ | J | Zener Diode, 5.6V | AA |
| D505 | VHD1SS119//1E | J | 1SS119 | AA |
| D506 | VHD1SS119//1E | J | 1SS119 | AA |

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| **DIODES (Continued)** | | | | |
| D507 | VHD1SS119//1E | J | 1SS119 | AA |
| D603 | RH-DX0073CEZZ | J | RH1Z | AD |
| D604 | RH-DX0279CEZZ | J | 1N4005 | AB |
| ⚠D606 | VHD1SS119//1E | J | 1SS119 | AA |
| ⚠D607 | RH-EX0182GEZZ | J | Zener Diode, 22V | AB |
| ⚠D608 | RH-EX0215CEZZ | J | Zener Diode | AB |
| ⚠D609 | VHD1SS119//1E | J | 1SS119 | AA |
| D610 | VHD1SS119//1E | J | 1SS119 | AA |
| D611 | VHD1SS119//1E | J | 1SS119 | AA |
| D612 | VHD1SS119//1E | J | 1SS119 | AA |
| D616 | VHD1SS119//1E | J | 1SS119 | AA |
| D617 | RH-EX0290CEZZ | J | Zener Diode, 4.7V | AA |
| ⚠D618 | VHD1SS119//1E | J | 1SS119 | AA |
| ⚠D619 | RH-DX0279CEZZ | J | 1N4005 | AB |
| D622 | RH-EX0290CEZZ | J | Zener Diode, 4.7V | AA |
| D623 | RH-EX0310CEZZ | J | Zener Diode, 8.2V | AA |
| D624 | VHD1SS119//1E | J | 1SS119 | AA |
| D626 | RH-DX0224CEZZ | J | | AB |
| D633 | VHD1SS119//1E | J | 1SS119 | AA |
| ⚠D701 | RH-DX0279CEZZ | J | | AB |
| ⚠D702 | RH-DX0279CEZZ | J | | AB |
| ⚠D703 | RH-DX0279CEZZ | J | | AB |
| ⚠D704 | RH-DX0279CEZZ | J | | AB |
| ⚠D705 | RH-DX0130CEZZ | J | EU-1Z | AE |
| ⚠D706 | RH-DX0130CEZZ | J | EU-1Z | AE |
| ⚠D707 | RH-DX0164CEZZ | J | | AC |
| ⚠D708 | RH-EX0092CEZZ | J | Zener Diode, 3.9V | AB |
| ⚠D709 | RH-DX0302CEZZ | J | | AC |
| D732 | RH-DX0302CEZZ | J | | AC |
| D733 | RH-DX0302CEZZ | J | | AC |
| D801 | VHD1SS119//1E | J | 1SS119 | AA |
| D802 | VHD1SS119//1E | J | 1SS119 | AA |
| D803 | VHD1SS119//1E | J | 1SS119 | AA |
| D804 | VHD1SS119//1E | J | 1SS119 | AA |
| D805 | RH-EX0341GEZZ | J | Zener Diode, 3V | AA |
| D807 | VHD1SS119//1E | J | 1SS119 | AA |
| D808 | VHD1SS119//1E | J | 1SS119 | AA |
| D809 | VHD1SS119//1E | J | 1SS119 | AA |
| D810 | RH-DX0005GEZZ | J | | AA |
| D901 | RH-EX0313CEZZ | J | Zener Diode | AA |
| D1002 | VHD1SS119//1E | J | 1SS119 | AA |
| D1003 | VHD1SS119//1E | J | 1SS119 | AA |
| D1004 | VHD1SS119//1E | J | 1SS119 | AA |
| D1005 | VHD1SS119//1E | J | 1SS119 | AA |
| D1007 | VHD1SS119//1E | J | 1SS119 | AA |
| D1008 | VHD1SS119//1E | J | 1SS119 | AA |
| D1010 | VHD1SS119//1E | J | 1SS119 | AA |
| D1012 | VHD1SS119//1E | J | 1SS119 | AA |
| D1013 | VHD1SS119//1E | J | 1SS119 | AA |
| D1017 | VHD1SS119//1E | J | 1SS119 | AA |
| D1018 | VHD1SS119//1E | J | 1SS119 | AA |
| D1020 | VHD1SS119//1E | J | 1SS119 | AA |
| D1022 | VHD1SS119//1E | J | 1SS119 | AA |
| D1023 | VHD1SS119//1E | J | 1SS119 | AA |

# PWB-A DUNTK7400WEV4
## MOTHER UNIT (Continued)

### DIODES (Continued)

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| D1024 | VHD1SS119//1E | J | 1SS119 | AA |
| D1026 | VHD1SS119//1E | J | 1SS119 | AA |
| D1027 | VHD1SS119//1E | J | 1SS119 | AA |
| D1030 | VHD1SS119//1E | J | 1SS119 | AA |
| D1031 | VHD1SS119//1E | J | 1SS119 | AA |
| D1032 | VHD1SS119//1E | J | 1SS119 | AA |

### PACKAGED CIRCUITS

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| ⚠ PR701 | RMPTP0061CEZZ | J | Positive Coefficient Thermistor | AV |
| X802 | RCRSB0008PEZZ | R | Crystal, 4.43 MHz | AH |
| MP1001 | RMPTC0282CEZZ | J | Resistor Array, 6.8k×4 | AC |
| MP1003 | RMPTC0282CEZZ | J | Resistor Array, 6.8k×4 | AC |
| MP1005 | RMPTE0011CEZZ | J | Capacitor Array,220p×4 | AC |

### COILS AND TRANSFORMERS

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| CF201 | RFiLC0020CEZZ | J | Ceramic Filter | AE |
| CF203 | RFiLC0024CEZZ | J | Ceramic Filter | AE |
| CF204 | RFiLC0020CEZZ | J | Ceramic Filter | AE |
| CF301 | RFiLC0061CEZZ | J | Ceramic Filter | AF |
| CF1001 | RFiLC0094GEZZ | J | Ceramic Filter | AC |
| L203 | VP-DF1R2M0000 | J | Coil, 1.2μH | AB |
| L204 | VP-XF120K0000 | J | Coil, 12μH | AB |
| L206 | VP-XF120K0000 | J | Coil, 12μH | AB |
| L211 | VP-DF120K0000 | J | Coil, 12μH | AB |
| L212 | VP-DF270K0000 | J | Coil, 27μH | AB |
| L216 | VP-DF120K0000 | J | Coil, 12μH | AB |
| L303 | RCiLP0093CEZZ | J | Peaking Coil | AE |
| L304 | VP-CF3R3K0000 | J | Coil, 3.3μH | AB |
| L305 | VP-CF3R3K0000 | J | Coil, 3.3μH | AB |
| L309 | VP-DF2R2M0000 | J | Coil, 2.2μH | AB |
| L601 | RCiLZ0499CEZZ | J | Linearity Coil | AF |
| L602 | RCiLP0088CEZZ | J | Coil, 3.3mH | AG |
| L603 | VP-CF100K0000 | J | Coil, 10μH | AB |
| L609 | VP-CF1R5M0000 | J | Coil, 1.5μH | AB |
| L612 | VP-CF3R3K0000 | J | Coil, 3.3μH | AB |
| L613 | VP-CF101K0000 | J | Coil, 100μH | AB |
| L632 | RCiLP0050CEZZ | J | Coil, 150μH | AE |
| ⚠ L702 | RCiLF0105CEZZ | J | Line Filter | AP |
| ⚠ L703 | RCiLP0093CEZZ | J | Peaking Coil | AE |
| ⚠ L704 | RCiLP0093CEZZ | J | Peaking Coil | AE |
| ⚠ L705 | VP-DF3R3K0000 | J | Coil, 3.3μH | AB |
| ⚠ L711 | RCiLP0093CEZZ | J | Peaking Coil | AE |
| L712 | VP-CJ330K0000 | J | Coil, 33μH | AB |
| L731 | VP-CF3R3K0000 | J | Coil, 3.3μH | AB |
| L732 | VP-CF3R3K0000 | J | Coil, 3.3μH | AB |
| L901 | VP-XF8R2K0000 | J | Coil, 8.2μH | AB |

### COILS AND TRANSFORMERS (Continued)

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| L1001 | VP-XF101K0000 | J | Coil, 100μH | AB |
| L1002 | VP-XF120K0000 | J | Coil, 12μH | AB |
| SF201 | RFiLC0115CEZZ | J | Surface Accoustic Wave Filter | AK |
| T203 | RCiLi0431CEZZ | J | S.A.W. Matching | AD |
| T205 | RCiLD0146CEZZ | J | PIF Detector | AF |
| ⚠ T601 | RTRNZ0179CEZZ | J | Horizontal Drive Trans. | AE |
| ⚠ T602 | RTRNF0063PEZZ | R | F.B.T. (Flyback Trans.) | BE |
| ⚠ T701 | RTRNZ0034PEZZ | R | Power Regulator Trans. | AU |
| T1001 | RCiLB0004PEZZ | R | On Screen Display | AF |

### CONTROLS

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| R248 | RVR-M4626GEZZ | J | 10k(B) RF-AGC | AB |
| R420 | RVR-M4626GEZZ | J | 10k(B) Sub-Contrast | AB |
| R509 | RVR-M4616GEZZ | J | 220(B) Vertical Size | AB |
| R514 | RVR-M4624GEZZ | J | 5k(B) Vert, Linearity | AB |
| R613 | RVR-M4626GEZZ | J | 10k(B) Horiz. Center | AB |
| ⚠ R711 | RVR-M4356GEZZ | J | 220(B) 115V Adjust | AB |

### CAPACITORS

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| C201 | VCKYMN1HB102K | J | 0.001 50V Ceramic (Chip) | AA |
| C202 | VCKYMN1CY103N | J | 0.01 16V Ceramic (Chip) | AA |
| C203 | VCKYMN1CY103N | J | 0.01 16V Ceramic (Chip) | AA |
| C204 | VCKYMN1HB102K | J | 0.001 50V Ceramic (Chip) | AA |
| C205 | VCFYHA1HA474J | J | 0.47 50V M. Polyester | AD |
| C206 | VCFYHA1HA104J | J | 0.1 50V M. Polyester | AB |
| C208 | VCEAGA1AW227M | J | 220 10V Electrolytic | AB |
| C209 | VCFYHA1HA104J | J | 0.1 50V M. Polyester | AB |
| C218 | VCKYD41HB101K | J | 100p 50V Ceramic | AA |
| C220 | VCSATA1VE225K | J | 2.2 35V Tantalum | AC |
| C222 | VCEAGA1CW107M | J | 100 16V Electrolytic | AB |
| C224 | VCKYMN1CY103N | J | 0.01 16V Ceramic (Chip) | AA |
| C225 | VCEAGA1HW105M | J | 1 50V Electrolytic | AC |
| C226 | VCKYMN1CY103N | J | 0.01 16V Ceramic (Chip) | AA |
| C231 | VCEAGA1HW105M | J | 1 50V Electrolytic | AC |
| C232 | VCEAGA1CW476M | J | 47 16V Electrolytic | AB |
| C233 | VCEAGA1CW106M | J | 10 16V Electrolytic | AA |
| C234 | VCKYMN1CY103N | J | 0.01 16V Ceramic (Chip) | AA |
| C239 | VCFYHA1HA104J | J | 0.1 50V M. Polyester | AB |
| C240 | VCEAGA1CW337M | J | 330 16V Electrolytic | AC |
| C242 | VCKYMN1CY103N | J | 0.01 16V Ceramic (Chip) | AA |
| C243 | VCKYPA1HF103Z | J | 0.01 50V Ceramic | AA |
| C244 | VCCCMN1HH120J | J | 12p 50V Ceramic (Chip) | AA |
| C249 | VCKYMN1CY103N | J | 0.01 16V Ceramic (Chip) | AA |
| C250 | VCKYMN1CY103N | J | 0.01 16V Ceramic (Chip) | AA |
| C251 | VCEAGA1CW107M | J | 100 16V Electrolytic | AB |
| C259 | VCKYMN1CY103N | J | 0.01 16V Ceramic (Chip) | AA |
| C301 | VCKYMN1CY103N | J | 0.01 16V Ceramic (Chip) | AA |
| C302 | VCKYMN1CY103N | J | 0.01 16V Ceramic (Chip) | AA |
| C303 | VCEAGA1HW475M | J | 4.7 50V Electrolytic | AB |

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|

# PWB-A DUNTK7400WEW5
## MOTHER UNIT (Continued)

### CAPACITORS (Continued)

| | | | | | | |
|---|---|---|---|---|---|---|
| C304 | VCEAGA1HW225M | J | 2.2 | 50V | Electrolytic | AB |
| C307 | VCEAGA1HW105M | J | 1 | 50V | Electrolytic | AC |
| C309 | VCEAGA1CW106M | J | 10 | 16V | Electrolytic | AA |
| C311 | VCKYPA2HB102K | J | 0.001 | 500V | Ceramic | AA |
| C312 | VCEAGA1EW477M | J | 470 | 25V | Electrolytic | AD |
| C313 | VCEAGA1HW104M | J | 0.1 | 50V | Electrolytic | AA |
| C314 | VCQYSH1HM272K | J | 2700p | 50V | Mylar | AA |
| C317 | VCEAGA1HW105M | J | 1 | 50V | Electrolytic | AC |
| C319 | VCKYD41HB101K | J | 1000p | 50V | Ceramic | AA |
| C320 | VCCSPA1HL101J | J | 100p | 50V | Ceramic | AA |
| C321 | VCCSPA1HL680J | J | 68p | 50V | Ceramic | AA |
| C322 | VCCSPA1HL221J | J | 220p | 50V | Ceramic | AA |
| C326 | VCEAGA1HW225M | J | 2.2 | 50V | Electrolytic | AB |
| C327 | VCKYPA1HB332K | J | 3300p | 50V | Ceramic | AA |
| C328 | VCEAGA1CW477M | J | 470 | 16V | Electrolytic | AC |
| C329 | VCKYMN1CY103N | J | 0.01 | 16V | Ceramic (Chip) | AA |
| C335 | VCKYMN1CY103N | J | 0.01 | 16V | Ceramic (Chip) | AA |
| C337 | VCKYMN1CY103N | J | 0.01 | 16V | Ceramic (Chip) | AA |
| C338 | VCKYMN1CY103N | J | 0.01 | 16V | Ceramic (Chip) | AA |
| C361 | VCEAGA1CW336M | J | 33 | 16V | Electrolytic | AC |
| C404 | VCFYHA1HA473J | J | 0.047 | 50V | M. Polyester | AB |
| C405 | VCEAGA1HW105M | J | 1 | 50V | Electrolytic | AC |
| C406 | VCE9AA1HW105M | J | 1 | 50V | Elect. (N.P) | AB |
| C407 | VCKYMN1CY103N | J | 0.01 | 16V | Ceramic (Chip) | AA |
| C408 | VCEAGA1CW106M | J | 10 | 16V | Electrolytic | AA |
| C421 | VCKYMN1HB101K | J | 100p | 50V | Ceramic (Chip) | AA |
| C431 | VCEAGA1AW107M | J | 100 | 10V | Electrolytic | AB |
| C435 | VCCCPA1HH101J | J | 100p | 50V | Ceramic | AA |
| C502 | VCKYPA1HB471K | J | 470p | 50V | Ceramic | AA |
| C503 | VCQYSH1HM272K | J | 2700p | 50V | Mylar | AA |
| C504 | VCKYMN1HB102K | J | 0.001 | 50V | Ceramic (Chip) | AA |
| C505 | VCFYHA1HA104J | J | 0.1 | 50V | M. Polyester | AD |
| C506 | VCEAGA1EW108M | J | 1000 | 25V | Electrolytic | AD |
| C507 | VCEAGA1EW227M | J | 220 | 25V | Electrolytic | AC |
| C508 | VCSATA1VE225K | J | 2.2 | 35V | Tantalum | AC |
| C509 | VCFYHA1HA104J | J | 0.1 | 50V | M. Polyester | AB |
| C510 | VCEAGA1VW477M | J | 470 | 35V | Electrolytic | AD |
| C511 | VCKYPA2HB102K | J | 0.001 | 500V | Ceramic | AA |
| C512 | VCEAGA1HW104M | J | 0.1 | 50V | Electrolytic | AA |
| C513 | VCEAGA1HW105M | J | 1 | 50V | Electrolytic | AC |
| C514 | VCSATA1VE104K | J | 0.1 | 35V | Tantalum | AC |
| C515 | VCQYSH1HM472K | J | 4700p | 50V | Mylar | AA |
| C518 | VCKYPA1HB102K | J | 1000p | 50V | Ceramic | AA |
| C606 | VCQYSH1HM103K | J | 0.01 | 50V | Mylar | AA |
| C610 | VCFYSB2EB823J | J | 0.082 | 250V | M. Polyester | AD |
| C611 | VCKYPA2HB102K | J | 0.001 | 500V | Ceramic | AA |
| C613 | VCFPPD2DB474J | J | 0.47 | 200V | M. Polyester | AE |
| C614 | VCQPSC2DA104J | J | 0.1 | 200V | Mylar | AC |
| C615 | VCFPPD2DB474J | J | 0.47 | 200V | M. Polyester | AE |
| ⚠ C616 | VCFPPD3CA103H | J | 0.01 | 1.6kV | M. Polyester | AE |
| C617 | VCFYHA1HA104J | J | 0.1 | 50V | M. Polyester | AB |

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|

### CAPACITORS (Continued)

| | | | | | | |
|---|---|---|---|---|---|---|
| C619 | VCEAGA2AW106M | J | 10 | 100V | Electrolytic | AC |
| ⚠ C620 | VCEAGA1HW105M | J | 1 | 50V | Electrolytic | AC |
| ⚠ C621 | VCEAGA0JW337M | J | 330 | 6.3V | Electrolytic | AB |
| ⚠ C622 | VCEAGA1CW476M | J | 47 | 16V | Electrolytic | AB |
| C628 | VCKYPA2HB221K | J | 220p | 500V | Ceramic | AA |
| ⚠ C630 | VCKYMN1CY103N | J | 0.01 | 16V | Ceramic (Chip) | AA |
| C631 | VCEAGA1CW107M | J | 100 | 16V | Electrolytic | AB |
| ⚠ C635 | VCEAGA1CW476M | J | 47 | 16V | Electrolytic | AB |
| C636 | VCEAGA1CW476M | J | 47 | 16V | Electrolytic | AB |
| C637 | VCEAGA1CW106M | J | 10 | 16V | Electrolytic | AA |
| C638 | VCKYMN1CY103N | J | 0.01 | 16V | Ceramic (Chip) | AA |
| C639 | VCKYD41HB101K | J | 100p | 50V | Ceramic | AA |
| C647 | VCEAGA1HW335M | J | 3.3 | 50V | Electrolytic | AB |
| C648 | VCEAGA1AW227M | J | 220 | 10V | Electrolytic | AB |
| C649 | VCKYMN1CX472N | J | 4700p | 16V | Ceramic (Chip) | AA |
| C650 | VCE9AA1HW105M | J | 1 | 50V | Elect. (N.P) | AB |
| C653 | VCKYPA2HB102K | J | 1000p | 500V | Ceramic | AA |
| C654 | VCEAGA1CW108M | J | 1000 | 16V | Electrolytic | AD |
| C655 | VCKYMN1CY103N | J | 0.01 | 16V | Ceramic (Chip) | AA |
| ⚠ C657 | VCFYHA1HA104J | J | 0.1 | 50V | M. Polyester | AB |
| ⚠ C701 | RC-FZ0066CEZZ | J | 0.1 | AC250V | M. Polyester | AF |
| ⚠ C704 | RC-KZ0029CEZZ | J | 0.01 | AC250V | Ceramic | AC |
| ⚠ C705 | RC-KZ0029CEZZ | J | 0.01 | AC250V | Ceramic | AC |
| ⚠ C706 | RC-KZ0029CEZZ | J | 0.01 | AC250V | Ceramic | AC |
| ⚠ C707 | RC-EZ0055CEZZ | J | 150 | 400V | Electrolytic | AN |
| ⚠ C708 | RC-KZ0029CEZZ | J | 0.01 | AC250V | Ceramic | AC |
| ⚠ C709 | VCEAGA1EW227M | J | 220 | 25V | Electrolytic | AC |
| ⚠ C710 | VCKYPA2HB102K | J | 1000p | 500V | Ceramic | AA |
| ⚠ C711 | VCQYSH1HM152K | J | 1500p | 50V | Mylar | AA |
| ⚠ C712 | VCFYHA1HA474J | J | 0.47 | 50V | M. Polyester | AD |
| ⚠ C713 | VCKYPA2HB102K | J | 1000p | 500V | Ceramic | AA |
| ⚠ C714 | VCQYSH1HM123K | J | 0.012 | 50V | Mylar | AA |
| ⚠ C715 | VCEAGA1HW105M | J | 1 | 50V | Electrolytic | AC |
| ⚠ C716 | VCEAGA1HW225M | J | 2.2 | 50V | Electrolytic | AB |
| ⚠ C717 | VCQPSC2JA333K | J | 0.033 | 630V | Porypro Film | AB |
| ⚠ C718 | VCKYPH3DB561K | J | 560p | 2kV | Ceramic | AC |
| ⚠ C719 | VCQYSH1HM273K | J | 0.027 | 50V | Mylar | AB |
| ⚠ C720 | VCEAGA1VW476M | J | 47 | 35V | Electrolytic | AB |
| ⚠ C721 | RC-KZ0024CEZZ | J | 1000p | 2kV | Ceramic | AC |
| ⚠ C723 | VCKYPA2HB102K | J | 1000p | 500V | Ceramic | AA |
| ⚠ C724 | RC-KZ0029CEZZ | J | 0.01 | AC250V | Ceramic | AC |
| ⚠ C725 | VCFYHA1HA474J | J | 0.47 | 50V | M. Polyester | AD |
| ⚠ C726 | VCKYPA1HB331K | J | 330p | 50V | Ceramic | AA |
| ⚠ C729 | VCFYHA1HA474J | J | 0.47 | 50V | M. Polyester | AD |
| C731 | VCEAAH2CW107M | J | 100 | 160 | Electrolytic | AE |
| C732 | RC-KZ0024CEZZ | J | 1000p | 2kV | Ceramic | AC |
| C733 | VCKYPA2HB102K | J | 0.001 | 500V | Ceramic | AA |
| C734 | VCEAGA1EW477M | J | 470 | 25V | Electrolytic | AD |
| C737 | VCEAGH2CW107M | J | 100 | 160V | Electrolytic | AE |
| ⚠ C741 | VCKYPA2HB472K | J | 4700p | 500V | Ceramic | AB |
| ⚠ C742 | VCFYHA1HA104J | J | 0.1 | 50V | M. Polyester | AB |
| ⚠ C745 | RC-KZ0156CEZZ | J | 3300p | 4kV | Ceramic | AG |
| C811 | VCQYSH1HM103K | J | 0.01 | 50V | Mylar | AA |
| C812 | VCQYSH1HM103K | J | 0.01 | 50V | Mylar | AA |

# PWB-A DUNTK7400WEW5
## MOTHER UNIT (Continued)

### CAPACITORS (Continued)

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| C813 | VCKYPA1HF103Z | J | 0.01 50V Ceramic | AA |
| C814 | VCEAGA1HW225M | J | 2.2 50V Electrolytic | AB |
| C815 | VCEAGA1HW475M | J | 4.7 50V Electrolytic | AB |
| C817 | VCFYHA1HA104J | J | 0.1 50V M. Polyester | AB |
| C818 | VCFYHA1HA104J | J | 0.1 50V M. Polyester | AB |
| C819 | VCCCMN1HH180J | J | 18p 50V Ceramic (Chip) | AA |
| C821 | VCKYPA1HB472K | J | 4700p 50V Ceramic | AA |
| C822 | VCEAGA1HW104M | J | 0.1 50V Electrolytic | AA |
| C823 | VCEAGA1AW476M | J | 47 10V Electrolytic | AA |
| C825 | VCKYPA1HB102K | J | 1000p 50V Ceramic | AA |
| C826 | VCKYPA1HB102K | J | 1000p 50V Ceramic | AA |
| C827 | VCKYMN1CY103N | J | 0.01 16V Ceramic (Chip) | AA |
| C829 | VCCSMN1HL560J | J | 56p 50V Ceramic (Chip) | AA |
| C830 | VCCSMN1HL560J | J | 56p 50V Ceramic (Chip) | AA |
| C831 | VCCSMN1HL560J | J | 56p 50V Ceramic (Chip) | AA |
| C835 | VCEAGA1EW107M | J | 100 25V Electrolytic | AD |
| C836 | VCCSPA1HL390J | J | 39p 50V Ceramic | AA |
| C840 | VCE9AA1CW106M | J | 10 16V Elect. (N.P) | AB |
| C901 | VCKYMN1CY103N | J | 0.01 16V Ceramic (Chip) | AA |
| C902 | VCEAGA1CW476M | J | 47 16V Electrolytic | AB |
| C903 | VCFYHA1HA104J | J | 0.1 50V M. Polyester | AB |
| C904 | VCFYHA1HA224J | J | 0.22 50V M. Polyester | AC |
| C906 | VCE9AA1HW105M | J | 1 50V Elect. (N.P) | AB |
| C907 | VCE9AA1HW105M | J | 1 50V Elect. (N.P) | AB |
| C908 | VCEAGA1HW105M | J | 1 50V Electrolytic | AB |
| C909 | VCCCPA1HH101J | J | 100p 50V Ceramic | AA |
| C910 | VCEAGA1CW476M | J | 47 16V Electrolytic | AB |
| C1002 | VCEAGA1HW225M | J | 2.2 50V Electrolytic | AB |
| C1003 | VCEAGA1HW225M | J | 2.2 50V Electrolytic | AB |
| C1004 | VCEAGA1HW475M | J | 4.7 50V Electrolytic | AB |
| C1005 | VCEAGA0JW337M | J | 330 6.3V Electrolytic | AB |
| C1007 | VCFYHA1HA104J | J | 0.1 50V M. Polyester | AB |
| C1008 | VCFYHA1HA104J | J | 0.1 50V M. Polyester | AB |
| C1009 | VCKYMN1HB221K | J | 220p 50V Ceramic (Chip) | AA |
| C1011 | VCKYMN1HB101K | J | 100p 50V Ceramic (Chip) | AA |
| C1013 | VCEAGA1HW106M | J | 10 50V Electrolytic | AC |
| C1015 | VCKYMN1CY103N | J | 0.01 16V Ceramic (Chip) | AA |
| C1016 | VCEAGA1HW335M | J | 3.3 50V Electrolytic | AB |
| C1017 | VCEAGA1AW477M | J | 470 10V Electrolytic | AC |
| C1022 | VCEAGA1CW476M | J | 47 16V Electrolytic | AB |
| C1023 | VCKYD41HB151K | J | 150p 50V Ceramic | AA |
| C1024 | VCKYD41HB151K | J | 150p 50V Ceramic | AA |
| C1025 | VCKYD41HB151K | J | 150p 50V Ceramic | AA |
| C1026 | VCKYMN1HB101K | J | 100p 50V Ceramic (Chip) | AA |
| C1027 | VCKYMN1HB331K | J | 330p 50V Ceramic (Chip) | AA |
| C1028 | VCKYMN1CY103N | J | 0.01 16V Ceramic (Chip) | AA |
| C1030 | VCKYMN1HB221K | J | 220p 50V Ceramic (Chip) | AA |
| C1031 | VCFYHA1HA104J | J | 0.1 50V M. Polyester | AB |
| C1032 | VCKYD41HB471K | J | 470P 50V Ceramic | AA |
| C1033 | VCKYMN1HB221K | J | 220p 50V Ceramic (Chip) | AA |
| C1038 | VCEAGA1AW107M | J | 100 10V Electrolytic | AB |

### RESISTORS (Continued)

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| R202 | VRD-RA2BE562J | J | 5.6k 1/8W Carbon | AA |
| R203 | VRD-MN2BE392J | J | 3.9k 1/8W Carbon (Chip) | AA |
| R204 | VRD-MN2BE220J | J | 22 1/8W Carbon (Chip) | AA |
| R205 | VRD-MN2BE151J | J | 150 1/8W Carbon (Chip) | AA |
| R206 | VRD-MN2BE471J | J | 470 1/8W Carbon (Chip) | AA |
| R207 | VRD-RA2EE221J | J | 220 1/4W Carbon | AA |
| R208 | VRD-MN2BE102J | J | 1k 1/8W Carbon (Chip) | AA |
| R209 | VRD-MN2BE151J | J | 150 1/8W Carbon (Chip) | AA |
| R211 | VRD-MN2BE561J | J | 560 1/8W Carbon (Chip) | AA |
| R212 | VRD-MN2BE391J | J | 390 1/8W Carbon (Chip) | AA |
| R214 | VRD-MN2BE681J | J | 680 1/8W Carbon (Chip) | AA |
| R215 | VRD-MN2BE103J | J | 10k 1/8W Carbon (Chip) | AA |
| R217 | VRD-RA2BE822J | J | 8.2k 1/8W Carbon | AA |
| R223 | VRD-MN2BE102J | J | 1k 1/8W Carbon (Chip) | AA |
| R225 | VRD-MN2BE223J | J | 22k 1/8W Carbon (Chip) | AA |
| R232 | VRD-RA2EE681J | J | 680 1/4W Carbon | AA |
| R233 | VRD-MN2BE474J | J | 470k 1/8W Carbon (Chip) | AA |
| R235 | VRD-RA2EE331J | J | 330 1/4W Carbon | AA |
| R236 | VRD-MN2BE472J | J | 4.7k 1/8W Carbon (Chip) | AA |
| R237 | VRD-MN2BE472J | J | 4.7k 1/8W Carbon (Chip) | AA |
| R238 | VRD-MN2BE472J | J | 4.7k 1/8W Carbon (Chip) | AA |
| R240 | VRD-MN2BE104J | J | 100k 1/8W Carbon (Chip) | AA |
| R241 | VRD-MN2BE684J | J | 680k 1/8W Carbon (Chip) | AA |
| R244 | VRD-MN2BE393J | J | 39k 1/8W Carbon (Chip) | AA |
| R248 | *See Controls* | | | |
| R249 | VRD-RA2BE222J | J | 2.2k 1/8W Carbon | AA |
| R254 | VRD-MN2BE333J | J | 33k 1/8W Carbon (Chip) | AA |
| R255 | VRD-MN2BE473J | J | 47k 1/8W Carbon (Chip) | AA |
| R256 | VRD-MN2BE104J | J | 100k 1/8W Carbon (Chip) | AA |
| R260 | VRD-RM2HD150J | J | 15 1/2W Carbon | AA |
| R261 | VRD-MN2BE473J | J | 47k 1/8W Carbon (Chip) | AA |
| R263 | VRD-RA2BE102J | J | 1k 1/8W Carbon | AA |
| R267 | VRD-RA2BE472J | J | 4.7k 1/8W Carbon | AA |
| R277 | VRD-RA2BE123J | J | 12k 1/8W Carbon | AA |
| R283 | VRD-RA2BE103J | J | 10k 1/8W Carbon | AA |
| R301 | VRD-MN2BE102J | J | 1k 1/8W Carbon (Chip) | AA |
| R302 | VRD-RA2BE102J | J | 1k 1/8W Carbon | AA |
| R306 | VRD-MN2BE103J | J | 10k 1/8W Carbon (Chip) | AA |
| R308 | VRD-MN2BE103J | J | 10k 1/8W Carbon (Chip) | AA |
| R309 | VRD-RA2BE103J | J | 10k 1/8W Carbon | AA |
| R314 | VRD-MN2BE330J | J | 33 1/8W Carbon (Chip) | AA |
| R317 | VRD-RA2BE153J | J | 15k 1/8W Carbon | AA |
| ⚠ R318 | VRD-MN2BE682J | J | 6.8k 1/8W Carbon (Chip) | AA |
| ⚠ R319 | VRD-RA2BE104J | J | 100k 1/8W Carbon | AA |
| R320 | VRD-MN2BE472J | J | 4.7k 1/8W Carbon (Chip) | AA |
| R321 | VRD-MN2BE103J | J | 10k 1/8W Carbon (Chip) | AA |
| R323 | VRD-MN2BE102J | J | 1k 1/8W Carbon (Chip) | AA |
| R327 | VRN-VV3DB5R6J | J | 5.6 2W Metal Film | AA |
| R328 | VRD-RA2BE221J | J | 220 1/8W Carbon | AA |
| R329 | VRD-MN2BE102J | J | 1k 1/8W Carbon (Chip) | AA |
| R332 | VRD-RA2BE103J | J | 10k 1/8W Carbon | AA |
| R335 | VRD-MN2BE102J | J | 1k 1/8W Carbon (Chip) | AA |
| R337 | VRD-MN2BE102J | J | 1k 1/8W Carbon (Chip) | AA |
| R338 | VRD-RA2BE103J | J | 10k 1/8W Carbon | AA |

# PWB-A DUNTK7400WEW5
## MOTHER UNIT (Continued)

### RESISTORS (Continued)

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| R340 | VRD-MN2BE103J | J | 10k 1/8W Carbon (Chip) | AA |
| R410 | VRD-RA2BE223J | J | 22k 1/8W Carbon | AA |
| R411 | VRD-MN2BE223J | J | 22k 1/8W Carbon (Chip) | AA |
| R412 | VRD-RA2BE333J | J | 33k 1/8W Carbon | AA |
| R414 | VRD-MN2BE223J | J | 22k 1/8W Carbon (Chip) | AA |
| R420 | *See Controls* | | | |
| R422 | VRD-MN2BE823J | J | 82k 1/8W Carbon (Chip) | AA |
| R437 | VRD-MN2BE473J | J | 47k 1/8W Carbon (Chip) | AA |
| R438 | VRD-MN2BE682J | J | 6.8k 1/8W Carbon (Chip) | AA |
| R447 | VRD-RA2BE681J | J | 680 1/8W Carbon | AA |
| R450 | VRD-RA2BE681J | J | 680 1/8W Carbon | AA |
| R504 | VRD-RA2BE221J | J | 220 1/8W Carbon | AA |
| R505 | VRD-MN2BE273J | J | 27k 1/8W Carbon (Chip) | AA |
| R506 | VRD-MN2BE392J | J | 3.9k 1/8W Carbon (Chip) | AA |
| R507 | VRD-RM2HD182J | J | 1.8k 1/2W Carbon | AA |
| R508 | VRD-MN2BE123J | J | 12k 1/8W Carbon (Chip) | AA |
| R509 | *See Controls* | | | |
| R510 | VRD-RM2HD1R8J | J | 1.8 1/2W Carbon | AA |
| R511 | VRD-MN2BE822J | J | 8.2k 1/8W Carbon (Chip) | AA |
| R512 | VRD-MN2BE472J | J | 4.7k 1/8W Carbon (Chip) | AA |
| R513 | VRD-RA2BE152J | J | 1.5k 1/8W Carbon | AA |
| R514 | *See Controls* | | | |
| ⚠ R515 | RR-XZ0035TAZZ | J | 22 1/4W Fuse Resistor | AB |
| R516 | VRD-RM2HD331J | J | 330 1/2W Carbon | AA |
| R517 | VRD-RM2HD222J | J | 2.2k 1/2W Carbon | AA |
| R518 | VRD-RA2EE272J | J | 2.7k 1/4W Carbon | AA |
| R520 | VRD-RA2EE275J | J | 2.7M 1/4W Carbon | AA |
| ⚠ R521 | RR-XZ0029CEZZ | J | 3.3 1/2W Fuse Resistor | AB |
| R522 | VRD-MN2BE102J | J | 1k 1/8W Carbon (Chip) | AA |
| R525 | VRD-MN2BE681J | J | 680 1/8W Carbon (Chip) | AA |
| R526 | VRD-RA2EE123J | J | 12k 1/4W Carbon | AA |
| R527 | VRD-RA2EE155J | J | 1.5M 1/4W Carbon | AA |
| R608 | VRD-RM2HD472J | J | 4.7k 1/2W Carbon | AA |
| R609 | VRS-SV3LB392J | J | 3.9k 3W Metal Oxide | AC |
| R611 | VRW-KV4AC120K | J | 12 10W Cement | AD |
| ⚠ R612 | RR-XZ0020CEZZ | J | 39 1/4W Fuse Resistor | AB |
| R613 | *See Controls* | | | |
| R614 | VRD-MN2BE824J | J | 820k 1/8W Carbon (Chip) | AA |
| R616 | VRD-RA2BE104J | J | 100k 1/8W Carbon | AA |
| R617 | VRD-RM2HD390J | J | 39 1/2W Carbon | AA |
| R618 | VRS-PU2HB102J | J | 1k 1/2W Metal Oxide | AA |
| R619 | VRD-MN2BE123J | J | 12k 1/8W Carbon (Chip) | AA |
| ⚠ R620 | RR-XZ0035TAZZ | J | 22 1/4W Fuse Resistor | AB |
| R621 | VRN-RV3AB1R2J | J | 1.2 1W Metal Film | AB |
| R622 | VRD-RM2HD223J | J | 22k 1/2W Carbon | AA |
| ⚠ R623 | VRD-RA2EE155J | J | 1.5M 1/4W Carbon | AA |
| ⚠ R624 | VRD-MN2BE274J | J | 270k 1/8W Carbon (Chip) | AA |
| R625 | VRD-MN2BE104J | J | 100k 1/8W Carbon (Chip) | AA |
| R626 | VRD-MN2BE103J | J | 10k 1/8W Carbon (Chip) | AA |
| R627 | VRD-RA2BE151J | J | 150 1/8W Carbon | AA |
| ⚠ R628 | VRD-MN2BE223J | J | 22k 1/8W Carbon (Chip) | AA |

### RESISTORS (Continued)

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| ⚠ R629 | VRD-MN2BE123J | J | 12k 1/8W Carbon (Chip) | AA |
| ⚠ R630 | VRD-MN2BE472J | J | 4.7k 1/8W Carbon (Chip) | AA |
| R634 | VRD-RM2HD101J | J | 100 1/2W Carbon | AA |
| ⚠ R635 | VRD-MN2BE223J | J | 22k 1/8W Carbon (Chip) | AA |
| ⚠ R636 | VRD-RA2BE472J | J | 4.7k 1/8W Carbon | AA |
| ⚠ R637 | VRD-MN2BE472J | J | 4.7k 1/8W Carbon (Chip) | AA |
| R640 | VRD-RM2HD682J | J | 6.8k 1/2W Carbon | AA |
| R641 | VRD-RA2BE273J | J | 27k 1/8W Carbon | AA |
| R642 | VRD-RM2HD222J | J | 2.2k 1/2W Carbon | AA |
| R643 | VRD-RM2HD151J | J | 150 1/2W Carbon | AA |
| R648 | VRD-RM2HD2R2J | J | 2.2 1/2W Carbon | AA |
| ⚠ R649 | VRD-MN2BE472J | J | 4.7k 1/8W Carbon (Chip) | AA |
| R650 | VRD-RA2BE222J | J | 2.2k 1/8W Carbon | AA |
| R651 | VRD-RA2BE101J | J | 100 1/8W Carbon | AA |
| R653 | VRD-RA2BE390J | J | 39 1/8W Carbon | AA |
| R654 | VRD-MN2BE393J | J | 39k 1/8W Carbon (Chip) | AA |
| R656 | VRD-MN2BE472J | J | 4.7k 1/8W Carbon (Chip) | AA |
| R657 | VRD-RA2BE151J | J | 150 1/8W Carbon | AA |
| R659 | VRD-RA2BE151J | J | 150 1/8W Carbon | AA |
| ⚠ R661 | RR-XZ0016CEZZ | J | 1 1/2W Fuse Resistor | AB |
| R662 | VRD-RM2HD562J | J | 5.6k 1/2W Carbon | AA |
| R664 | VRD-MN2BE273J | J | 27k 1/8W Carbon (Chip) | AA |
| R671 | VRD-RA2BE332J | J | 3.3k 1/8W Carbon | AA |
| R672 | VRD-RU2EE820J | J | 82 1/4W Carbon | AA |
| ⚠ R701 | VRW-KV3NC6R8K | J | 6.8 7W Cement | AC |
| ⚠ R703 | VRS-SV3LB273J | J | 27k 3W Metal Oxide | AC |
| ⚠ R704 | VRS-VV3DB100J | J | 10 2W Metal Oxide | AA |
| ⚠ R705 | VRD-RM2HD2R2J | J | 2.2 1/2W Carbon | AA |
| ⚠ R706 | VRD-RA2BE124J | J | 120k 1/8W Carbon | AA |
| ⚠ R707 | VRD-RA2BE390J | J | 39 1/8W Carbon | AA |
| ⚠ R708 | VRS-SV3LB124J | J | 120k 3W Metal Oxide | AC |
| ⚠ R710 | VRD-RA2BE392G | J | 3.9k 1/8W Carbon | AA |
| ⚠ R711 | *See Controls* | | | |
| ⚠ R712 | VRD-RA2BE681J | J | 680 1/8W Carbon | AA |
| ⚠ R713 | VRD-RA2EE225J | J | 2.2M 1/4W Carbon | AA |
| ⚠ R714 | VRD-RA2BE124J | J | 120k 1/8W Carbon | AA |
| ⚠ R715 | VRD-RA2BE103J | J | 10k 1/8W Carbon | AA |
| ⚠ R716 | VRD-RA2BE180J | J | 18 1/8W Carbon | AA |
| ⚠ R717 | VRD-RA2BE101J | J | 100 1/8W Carbon | AA |
| ⚠ R718 | VRN-VV3ABR22J | J | 0.22 1W Metal Film | AA |
| ⚠ R719 | VRC-UA2HG825K | J | 8.2M 1/2W Solid | AA |
| ⚠ R720 | VRC-UA2HG825K | J | 8.2M 1/2W Solid | AA |
| ⚠ R723 | VRS-SV3LB272J | J | 2.7k 3W Metal Oxide | AD |
| ⚠ R724 | VRD-RA2BE102J | J | 1k 1/8W Carbon | AA |
| ⚠ R725 | VRD-RA2BE181J | J | 180 1/8W Carbon | AA |
| ⚠ R731 | RR-XZ0016CEZZ | J | 1 1/2W Fuse Resistor | AB |
| R735 | VRD-RM2HD184J | J | 1.8M 1/2W Carbon | AA |
| R736 | VRD-RM2HD184J | J | 1.8M 1/2W Carbon | AA |
| R808 | VRD-RA2BE473J | J | 47k 1/8W Carbon | AA |
| R809 | VRD-MN2BE271J | J | 270 1/8W Carbon (Chip) | AA |
| R811 | VRD-MN2BE271J | J | 270 1/8W Carbon (Chip) | AA |
| R812 | VRD-MN2BE271J | J | 270 1/8W Carbon (Chip) | AA |
| R816 | VRD-RA2BE223J | J | 22k 1/8W Carbon | AA |
| R817 | VRD-RA2BE562J | J | 5.6k 1/8W Carbon | AA |

# PWB-A DUNTK7400WEV4
## MOTHER UNIT (Continued)

### RESISTORS (Continued)

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| R818 | VRD-RA2BE562J | J | 5.6k 1/8W Carbon | AA |
| R819 | VRD-RA2BE562J | J | 5.6k 1/8W Carbon | AA |
| R820 | VRD-MN2BE102J | J | 1k 1/8W Carbon (Chip) | AA |
| R825 | VRD-RA2BE103J | J | 10k 1/8W Carbon | AA |
| R828 | VRD-MN2BE683J | J | 68k 1/8W Carbon (Chip) | AA |
| R829 | VRD-MN2BE104J | J | 100k 1/8W Carbon (Chip) | AA |
| R832 | VRD-RA2BE271J | J | 270 1/8W Carbon | AA |
| R833 | VRD-MN2BE223J | J | 22k 1/8W Carbon (Chip) | AA |
| R837 | VRD-MN2BE102J | J | 1k 1/8W Carbon (Chip) | AA |
| R838 | VRD-MN2BE102J | J | 1k 1/8W Carbon (Chip) | AA |
| R839 | VRD-MN2BE102J | J | 1k 1/8W Carbon (Chip) | AA |
| R840 | VRD-MN2BE102J | J | 1k 1/8W Carbon (Chip) | AA |
| R841 | VRD-MN2BE102J | J | 1k 1/8W Carbon (Chip) | AA |
| R842 | VRD-MN2BE102J | J | 1k 1/8W Carbon (Chip) | AA |
| R843 | VRD-MN2BE103J | J | 10k 1/8W Carbon (Chip) | AA |
| R844 | VRD-RM2HD681J | J | 680 1/2W Carbon | AA |
| R849 | VRD-MN2BE123J | J | 12k 1/8W Carbon (Chip) | AA |
| R891 | VRD-RA2BE122J | J | 1.2k 1/8W Carbon | AA |
| R901 | VRD-MN2BE101J | J | 100 1/8W Carbon (Chip) | AA |
| R902 | VRD-RA2BE221J | J | 220 1/8W Carbon | AA |
| R903 | VRD-RM2HD100J | J | 10 1/2W Carbon | AA |
| R1006 | VRD-MN2BE183J | J | 18k 1/8W Carbon (Chip) | AA |
| R1007 | VRD-MN2BE123J | J | 12k 1/8W Carbon (Chip) | AA |
| R1008 | VRD-MN2BE471J | J | 470 1/8W Carbon (Chip) | AA |
| R1009 | VRD-MN2BE472J | J | 4.7k 1/8W Carbon (Chip) | AA |
| R1010 | VRD-MN2BE472J | J | 4.7k 1/8W Carbon (Chip) | AA |
| R1011 | VRD-MN2BE472J | J | 4.7k 1/8W Carbon (Chip) | AA |
| R1012 | VRD-RA2BE223J | J | 22k 1/8W Carbon | AA |
| R1014 | VRD-MN2BE392J | J | 3.9k 1/8W Carbon (Chip) | AA |
| R1015 | VRD-RA2BE103J | J | 10k 1/8W Carbon | AA |
| R1016 | VRD-MN2BE392J | J | 3.9k 1/8W Carbon (Chip) | AA |
| R1017 | VRD-MN2BE223J | J | 22k 1/8W Carbon (Chip) | AA |
| R1019 | VRD-MN2BE101J | J | 100 1/8W Carbon (Chip) | AA |
| R1020 | VRD-MN2BE101J | J | 100 1/8W Carbon (Chip) | AA |
| R1021 | VRD-RA2BE101J | J | 100 1/8W Carbon | AA |
| R1022 | VRD-RA2BE101J | J | 100 1/8W Carbon | AA |
| R1026 | VRD-MN2BE333J | J | 33k 1/8W Carbon (Chip) | AA |
| R1028 | VRD-MN2BE684J | J | 680k 1/8W Carbon (Chip) | AA |
| R1029 | VRD-MN2BE333J | J | 33k 1/8W Carbon (Chip) | AA |
| R1030 | VRD-RA2BE333J | J | 33k 1/8W Carbon | AA |
| R1031 | VRD-RA2BE153J | J | 15k 1/8W Carbon | AA |
| R1032 | VRS-VV3DB123J | J | 12k 2W Metal Oxide | AA |
| R1034 | VRD-MN2BE271J | J | 270 1/8W Carbon (Chip) | AA |
| R1035 | VRD-RA2BE101J | J | 100 1/8W Carbon | AA |
| R1036 | VRD-RA2BE102J | J | 1k 1/8W Carbon | AA |
| R1038 | VRD-MN2BE472J | J | 4.7k 1/8W Carbon (Chip) | AA |
| R1039 | VRD-MN2BE153J | J | 15k 1/8W Carbon (Chip) | AA |
| R1040 | VRD-RA2BE123J | J | 12k 1/8W Carbon | AA |
| R1041 | VRD-MN2BE333J | J | 33k 1/8W Carbon (Chip) | AA |
| R1044 | VRD-MN2BE103J | J | 10k 1/8W Carbon (Chip) | AA |
| R1045 | VRD-MN2BE101J | J | 100 1/8W Carbon (Chip) | AA |

### RESISTORS (Continued)

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| R1046 | VRD-RA2BE682J | J | 6.8k 1/8W Carbon | AA |
| R1047 | VRD-RA2BE332J | J | 3.3k 1/8W Carbon | AA |
| R1048 | VRD-MN2BE102J | J | 1k 1/8W Carbon (Chip) | AA |
| R1049 | VRD-MN2BE102J | J | 1k 1/8W Carbon (Chip) | AA |
| R1050 | VRD-RA2BE102J | J | 1k 1/8W Carbon | AA |
| R1051 | VRD-RA2BE182J | J | 1.8k 1/8W Carbon | AA |
| R1052 | VRD-MN2BE332J | J | 3.3k 1/8W Carbon (Chip) | AA |
| R1053 | VRD-MN2BE332J | J | 3.3k 1/8W Carbon (Chip) | AA |
| R1054 | VRD-MN2BE153J | J | 15k 1/8W Carbon (Chip) | AA |
| R1055 | VRD-MN2BE683J | J | 68k 1/8W Carbon (Chip) | AA |
| R1056 | VRD-MN2BE153J | J | 15k 1/8W Carbon (Chip) | AA |
| R1057 | VRD-RA2BE472J | J | 4.7k 1/8W Carbon | AA |
| R1060 | VRD-RA2EE331J | J | 330 1/4W Carbon | AA |
| R1061 | VRD-RA2EE181J | J | 180 1/4W Carbon | AA |
| R1062 | VRD-RA2EE681J | J | 680 1/4W Carbon | AA |
| R1064 | VRD-MN2BE123J | J | 12k 1/8W Carbon (Chip) | AA |
| R1065 | VRD-RA2BE103J | J | 10k 1/8W Carbon | AA |
| R1066 | VRD-RA2BE682J | J | 6.8k 1/8W Carbon | AA |
| R1067 | VRD-RA2EE821J | J | 820 1/4W Carbon | AA |
| R1068 | VRD-RA2EE270J | J | 27 1/4W Carbon | AA |
| R1069 | VRD-RA2EE331J | J | 330 1/4W Carbon | AA |
| R1072 | VRD-MN2BE223J | J | 22k 1/8W Carbon (Chip) | AA |
| R1073 | VRD-RA2BE102J | J | 1k 1/8W Carbon | AA |
| R1074 | VRD-RA2BE472J | J | 4.7k 1/8W Carbon | AA |
| R1081 | VRD-RA2BE103J | J | 10k 1/8W Carbon | AA |

### SWITCHES

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| S501 | QSW-B0015CEZZ | J | Vertical Center Adj. | AC |
| ⚠ S701 | QSW-P0418CEZZ | J | Power | AK |
| ⚠ S1001 | QSW-K0076CEZZ | J | Channel (+) | AB |
| ⚠ S1002 | QSW-K0076CEZZ | J | Channel (−) | AB |
| ⚠ S1003 | QSW-K0076CEZZ | J | Volume (+) | AB |
| ⚠ S1004 | QSW-K0076CEZZ | J | Volume (−) | AB |
| ⚠ S1005 | QSW-K0076CEZZ | J | P-Mode | AB |
| ⚠ S1006 | QSW-K0076CEZZ | J | Pre-set | AB |
| ⚠ S1007 | QSW-K0076CEZZ | J | Skip | AB |

### MISCELLANEOUS PARTS

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| CN301 | QCNW-1265PEZZ | R | Connecting Cord | AF |
| CN601 | QCNW-0430PEZZ | R | Connecting Cord | AC |
| F300 | QFS-J2521GEZZ | J | IC Protector | AE |
| ⚠ F701 | QFS-C2024CEZZ | J | Fuse, T2A | AD |
| FB602 | RBLN-0010CEZZ | J | Ferrite Bead | AC |
| FB603 | RBLN-0018CEZZ | J | Ferrite Bead | AB |
| ⚠ FB701 | RBLN-0010CEZZ | J | Ferrite Bead | AC |
| ⚠ FB702 | RBLN-0037CEZZ | J | Ferrite Bead | AB |
| FB731 | RBLN-0037CEZZ | J | Ferrite Bead | AB |
| ⚠ FH701 | QFSHD1009CEZZ | J | Fuse Holder | AA |
| ⚠ FH702 | QFSHD1010CEZZ | J | Fuse Holder | AA |

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|

# PWB-A DUNTK7400WEW5
## MOTHER UNIT (Continued)

### MISCELLANEOUS PARTS (Continued)

| | | | | |
|---|---|---|---|---|
| P301 | QPLGN0241CEZZ | J | Plug 2-pin, (S) | AA |
| P307 | QPLGN0341CEZZ | J | Plug 3-pin, (YA) | AA |
| P401 | QPLGN0541CEZZ | J | Plug 5-pin, (Y) | AB |
| P502 | QPLGN0505CEZZ | J | Plug 5-pin, (F) | AB |
| P601 | QPLGN0207CEZZ | J | Plug 2-pin, H-Cent. Adj. | AA |
| P602 | QPLGN0441CEZZ | J | Plug 4-pin, (H) | AB |
| P603 | QPLGN0341CEZZ | J | Plug 3-pin, (EB) | AA |
| ⚠ P711 | QPLGN0207CEZZ | J | Plug 2-pin, (G) | AA |
| ⚠ P712 | QPLGN0304CEZZ | J | Plug 3-pin, (A) | AB |
| P801 | QPLGN0541CEZZ | J | Plug 5-pin, (K) | AB |
| P802 | QPLGN0641CEZZ | J | Plug 6-pin, (OD) | AB |
| P1001 | QPLGN0341CEZZ | J | Plug 3-pin, (I) | AA |
| P1002 | QPLGN0441CEZZ | J | Plug 4-pin, (DB) | AB |
| P1003 | QPLGN0579GEZZ | J | Plug 5-pin, (ME) | AB |

— End of PWB-A —

# PWB-B DUNTK7001WEX1
## CRT SOCKET UNIT

### TRANSISTORS

| | | | | |
|---|---|---|---|---|
| Q851 | VS2SC2611/-1E | J | 2SC2611 | AE |
| Q852 | VS2SC2611/-1E | J | 2SC2611 | AE |
| Q853 | VS2SC2611/-1E | J | 2SC2611 | AE |
| Q854 | VS2SA1015Y/1E | J | 2SA1015(Y) | AC |

### DIODE

| | | | | |
|---|---|---|---|---|
| D851 | VHD1SS119//1E | J | 1SS119 | AA |

### COIL

| | | | | |
|---|---|---|---|---|
| L851 | VP-CF681K0000 | J | 680μH | AB |

### CONTROLS

| | | | | |
|---|---|---|---|---|
| R853 | RVR-B4568CEZZ | J | 10k(B) Red Bias | AC |
| R857 | RVR-B4563CEZZ | J | 500(B) Green Drive | AC |
| R859 | RVR-B4568CEZZ | J | 10k(B) Green Bias | AC |
| R863 | RVR-B4563CEZZ | J | 500(B) Blue Drive | AC |
| R865 | RVR-B4568CEZZ | J | 10k(B) Blue Bias | AC |

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|

### CAPACITORS

| | | | | | | |
|---|---|---|---|---|---|---|
| C851 | VCKYPA1HB561K | J | 560p | 50V | Ceramic | AA |
| C852 | VCKYPA1HB471K | J | 470p | 50V | Ceramic | AA |
| C853 | VCKYPA1HB471K | J | 470p | 50V | Ceramic | AA |
| C854 | RC-KZ0150CEZZ | J | 1000p | 3kV | Ceramic | AB |
| C860 | VCKYPA1HF103Z | J | 0.01 | 50V | Ceramic | AA |
| C861 | VCEAGA1CW106M | J | 10 | 16V | Electrolytic | AA |
| C866 | VCEAAA2DW106M | J | 10 | 200V | Electrolytic | AC |
| C870 | VCEAGA1CW476M | J | 47 | 16V | Electrolytic | AB |

### RESISTORS

| | | | | | | |
|---|---|---|---|---|---|---|
| R851 | VRD-RA2BE471J | J | 470 | 1/8W | Carbon | AA |
| R852 | VRD-RA2BE332J | J | 3.3k | 1/8W | Carbon | AA |
| R853 | *See Controls* | | | | | |
| R855 | VRD-RM2HD272J | J | 2.7k | 1/2W | Carbon | AA |
| R856 | VRD-RA2BE391J | J | 390 | 1/8W | Carbon | AA |
| R857 | *See Controls* | | | | | |
| R858 | VRD-RA2BE332J | J | 3.3k | 1/8W | Carbon | AA |
| R859 | *See Controls* | | | | | |
| R860 | VRS-VV3DB123J | J | 12k | 2W | Metal Oxide | AA |
| R861 | VRD-RM2HD272J | J | 2.7k | 1/2W | Carbon | AA |
| R862 | VRD-RA2BE471J | J | 470 | 1/8W | Carbon | AA |
| R863 | *See Controls* | | | | | |
| R864 | VRD-RA2BE332J | J | 3.3k | 1/8W | Carbon | AA |
| R865 | *See Controls* | | | | | |
| R866 | VRS-VV3DB123J | J | 12k | 2W | Metal Oxide | AA |
| R867 | VRD-RM2HD272J | J | 2.7k | 1/2W | Carbon | AA |
| R868 | VRS-VV3DB123J | J | 12k | 2W | Metal Oxide | AA |
| R872 | VRD-RA2BE681J | J | 680 | 1/8W | Carbon | AA |
| R873 | VRD-RA2BE681J | J | 680 | 1/8W | Carbon | AA |
| R874 | VRD-RA2BE681J | J | 680 | 1/8W | Carbon | AA |
| R875 | VRD-RA2BE560J | J | 56 | 1/8W | Carbon | AA |
| R876 | VRD-RA2BE560J | J | 56 | 1/8W | Carbon | AA |
| R877 | VRD-RA2BE560J | J | 56 | 1/8W | Carbon | AA |
| R878 | VRD-RA2BE821J | J | 820 | 1/8W | Carbon | AA |
| R879 | VRD-RA2BE822J | J | 8.2k | 1/8W | Carbon | AA |
| R880 | VRD-RA2BE101J | J | 100 | 1/8W | Carbon | AA |
| R881 | VRD-RA2BE122J | J | 1.2k | 1/8W | Carbon | AA |

### MISCELLANEOUS PARTS

| | | | | |
|---|---|---|---|---|
| CN851 | QCNW-1266PEZZ | R | Connecting Cord, (H) | AF |
| CN852 | QCNW-1264PEZZ | R | Connecting Cord, (K) | AG |
| FB851 | RBLN-0037CEZZ | J | Ferrite Bead | AB |
| P851 | QPLGN0441CEZZ | J | Plug 4-pin, (H) | AB |
| P852 | QPLGN0541CEZZ | J | Plug 5-pin, (K) | AB |
| ⚠ SC851 | QSOCV0913CEZZ | J | CRT Socket | AK |

— End of PWB-B —

**PWB-C —— *Not used* ——**

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|

## PWB-D DUNTK7078WEV0
### SIF CONVERTER UNIT

| | | | | |
|---|---|---|---|---|
| **TRANSISTORS** | | | | |
| Q1381 | VS2SC1815GW-1 | J | 2SC1815(GW) | AB |
| Q1382 | VS2SC1815GW-1 | J | 2SC1815(GW) | AB |
| **COILS** | | | | |
| L1381 | VP-XF3R3K0000 | J | 3.3μH | AB |
| L1382 | VP-XF150K0000 | J | 15μH | AB |
| L1383 | VP-XF120K0000 | J | 12μH | AB |
| L1384 | VP-XF120K0000 | J | 12μH | AB |
| **CERAMIC FILTER** | | | | |
| CF1381 | RFiLA0025CEZZ | J | | AF |
| **CAPACITORS** | | | | |
| C1381 | VCCCPA1HH101J | J | 100p 50V Ceramic | AA |
| C1382 | VCKYD41HB331K | J | 330p 50V Ceramic | AA |
| C1383 | VCCCPA1HH220J | J | 22p 50V Ceramic | AA |
| C1384 | VCKYD41CY103N | J | 0.01 16V Ceramic | AA |
| C1385 | VCCCPA1HH101J | J | 100p 50V Ceramic | AA |
| C1386 | VCCCPA1HH820J | J | 82p 50V Ceramic | AA |
| C1387 | VCKYD41CY103N | J | 0.01 16V Ceramic | AA |
| C1388 | VCKYD41CY103N | J | 0.01 16V Ceramic | AA |
| C1389 | VCCCPA1HH101J | J | 100p 50V Ceramic | AA |
| C1390 | VCCCPA1HH390J | J | 39p 50V Ceramic | AA |
| C1392 | VCKYD41CY103N | J | 0.01 16V Ceramic | AA |
| **RESISTORS** | | | | |
| R1381 | VRD-RA2BE101J | J | 100 1/8W Carbon | AA |
| R1382 | VRD-RA2EE105J | J | 1M 1/4W Carbon | AA |
| R1383 | VRD-RA2BE103J | J | 10k 1/8W Carbon | AA |
| R1384 | VRD-RA2BE102J | J | 1k 1/8W Carbon | AA |
| R1385 | VRD-RA2BE102J | J | 1k 1/8W Carbon | AA |
| R1386 | VRD-RA2BE391J | J | 390 1/8W Carbon | AA |
| R1387 | VRD-RA2BE470J | J | 47 1/8W Carbon | AA |
| R1388 | VRD-RA2BE183J | J | 18k 1/8W Carbon | AA |
| R1389 | VRD-RA2BE561J | J | 560 1/8W Carbon | AA |
| **MISCELLANEOUS PARTS** | | | | |
| P1381 | QPLGN0728GEZZ | J | Plug 7-pin, (MC) | AB |

—— End of PWB-D ——

**PWB-E —— *Not used* ——**

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|

## PWB-F DUNTK7464WEV1
### RGB UNIT

| | | | | |
|---|---|---|---|---|
| **INTEGRATED CIRCUIT** | | | | |
| IC1301 | RH-iX0257CEZZ | J | | AF |
| **TRANSISTORS** | | | | |
| Q1302 | VS2SC945AP/-1 | J | 2SC945A (P) | AB |
| Q1303 | VS2SC945AP/-1 | J | 2SC945A (P) | AB |
| Q1304 | VS2SA1015Y/1E | J | 2SA1015 (Y) | AC |
| Q1401 | VS2SC945AP/-1 | J | 2SC945A (P) | AB |
| Q1402 | VS2SC945AP/-1 | J | 2SC945A (P) | AB |
| Q1403 | VS2SC945AP/-1 | J | 2SC945A (P) | AB |
| Q1404 | VS2SC945AP/-1 | J | 2SC945A (P) | AB |
| Q1407 | VS2SC945AP/-1 | J | 2SC945A (P) | AB |
| **DIODES** | | | | |
| D1301 | VHD1SS119//1E | J | 1SS119 | AA |
| D1302 | VHD1SS119//1E | J | 1SS119 | AA |
| D1304 | RH-EX0045TAZZ | J | Zener Diode | AB |
| D1305 | RH-EX0045TAZZ | J | Zener Diode | AB |
| D1401 | VHD1SS119//1E | J | 1SS119 | AA |
| D1403 | RH-EX0030GEZZ | J | Zener Diode | AB |
| D1804 | RH-EX0147CEZZ | J | Zener Diode | AC |
| D1805 | RH-EX0147CEZZ | J | Zener Diode | AC |
| D1806 | RH-EX0147CEZZ | J | Zener Diode | AC |
| D1807 | RH-EX0147CEZZ | J | Zener Diode | AC |
| **COILS** | | | | |
| L1302 | VP-DF3R3K0000 | J | 3.3μH | AB |
| L1303 | VP-DF3R3K0000 | J | 3.3μH | AB |
| L1304 | VP-DF3R3K0000 | J | 3.3μH | AB |
| L1401 | VP-DF220K0000 | J | 22μH | AB |
| **CAPACITORS** | | | | |
| C1301 | VCEAGA1CW107M | J | 100 16V Electrolytic | AB |
| C1302 | VCKYPA1HF103Z | J | 0.01 50V Ceramic | AA |
| C1303 | VCEAGA1CW106M | J | 10 16V Electrolytic | AA |
| C1304 | VCEAGA1CW106M | J | 10 16V Electrolytic | AA |
| C1305 | VCEAGA1HW105M | J | 1 50V Electrolytic | AC |
| C1306 | VCEAGA1CW476M | J | 47 16V Electrolytic | AB |
| C1307 | VCKYPA1HF103Z | J | 0.01 50V Ceramic | AA |
| C1308 | VCKYPA1HB102K | J | 1000p 50V Ceramic | AA |
| C1309 | VCKYPA1HB101K | J | 100p 50V Ceramic | AA |
| C1310 | VCKYPA1HB102K | J | 1000p 50V Ceramic | AA |
| C1311 | VCKYPA1HB101K | J | 100p 50V Ceramic | AA |
| C1313 | VCE9AA1CW106M | J | 10 16V Elect. (N.P) | AB |

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|

## PWB-F DUNTK7464WEV1
## RGB UNIT (Continued)

### CAPACITORS (Continued)

| | | | | | | |
|---|---|---|---|---|---|---|
| C1401 | VCCCPA1HH390J | J | 39p | 50V | Ceramic | AA |
| C1402 | VCEAGA1CW476M | J | 47 | 16V | Electrolytic | AB |
| C1403 | VCEAGA1AW107M | J | 100 | 10V | Electrolytic | AB |
| C1404 | VCEAGA1CW108M | J | 1000 | 16V | Electrolytic | AD |
| C1405 | VCKYPA1HF103Z | J | 0.01 | 50V | Ceramic | AA |
| C1406 | VCEAGA0JW477M | J | 470 | 6.3V | Electrolytic | AB |
| C1408 | VCKYPA1HF103Z | J | 0.01 | 50V | Ceramic | AA |
| C1412 | VCEAGA1CW106M | J | 10 | 16V | Electrolytic | AA |
| C1414 | VCKYPA1HB102K | J | 1000p | 50V | Ceramic | AA |
| C1415 | VCEAGA1CW107M | J | 100 | 16V | Electrolytic | AB |

### RESISTORS

| | | | | | | |
|---|---|---|---|---|---|---|
| R1301 | VRD-RA2BE273J | J | 27k | 1/8W | Carbon | AA |
| R1302 | VRD-RA2BE473J | J | 47k | 1/8W | Carbon | AA |
| R1304 | RR-XZ0036TAZZ | J | 15 | 1/4W | Fuse Resistor | AB |
| R1306 | VRD-RA2BE123J | J | 12k | 1/8W | Carbon | AA |
| R1307 | VRD-RA2BE123J | J | 12k | 1/8W | Carbon | AA |
| R1308 | VRD-RA2BE103J | J | 10k | 1/8W | Carbon | AA |
| R1309 | VRD-RA2BE103J | J | 10k | 1/8W | Carbon | AA |
| R1310 | VRD-RA2BE103J | J | 10k | 1/8W | Carbon | AA |
| R1311 | VRD-RA2BE103J | J | 10k | 1/8W | Carbon | AA |
| R1312 | VRD-RA2BE273J | J | 27k | 1/8W | Carbon | AA |
| R1313 | VRD-RA2BE103J | J | 10k | 1/8W | Carbon | AA |
| R1314 | VRD-RA2BE100J | J | 10 | 1/8W | Carbon | AA |
| R1315 | VRD-RA2BE104J | J | 100k | 1/8W | Carbon | AA |
| R1317 | VRD-RA2BE101J | J | 100 | 1/8W | Carbon | AA |
| R1318 | VRD-RA2BE104J | J | 100k | 1/8W | Carbon | AA |
| R1320 | VRD-RA2BE273J | J | 27k | 1/8W | Carbon | AA |
| R1323 | VRD-RA2BE183J | J | 18k | 1/8W | Carbon | AA |
| R1324 | VRD-RA2BE183J | J | 18k | 1/8W | Carbon | AA |
| R1325 | VRD-RA2EE333J | J | 33k | 1/4W | Carbon | AA |
| R1401 | RR-XZ0036TAZZ | J | 15 | 1/4W | Fuse Resistor | AB |
| R1402 | VRD-RA2BE103J | J | 10k | 1/8W | Carbon | AA |
| R1403 | VRD-RA2BE472J | J | 4.7k | 1/8W | Carbon | AA |
| R1404 | VRD-RA2BE122J | J | 1.2k | 1/8W | Carbon | AA |
| R1405 | VRD-RA2BE102J | J | 1k | 1/8W | Carbon | AA |
| R1406 | VRD-RA2BE102J | J | 1k | 1/8W | Carbon | AA |
| R1407 | VRD-RA2BE122J | J | 1.2k | 1/8W | Carbon | AA |
| R1408 | VRD-RA2BE472J | J | 4.7k | 1/8W | Carbon | AA |
| R1409 | VRD-RA2BE102J | J | 1k | 1/8W | Carbon | AA |
| R1410 | VRD-RA2BE472J | J | 4.7k | 1/8W | Carbon | AA |
| R1411 | VRD-RM2HD101J | J | 100 | 1/2W | Carbon | AA |
| R1412 | VRD-RA2EE560J | J | 56 | 1/4W | Carbon | AA |
| R1414 | VRD-RA2BE103J | J | 10k | 1/8W | Carbon | AA |
| R1415 | VRD-RA2BE473J | J | 47k | 1/8W | Carbon | AA |
| R1417 | VRD-RA2BE473J | J | 47k | 1/8W | Carbon | AA |
| R1418 | VRD-RA2BE102J | J | 1k | 1/8W | Carbon | AA |
| R1420 | VRD-RA2EE820J | J | 82 | 1/4W | Carbon | AA |
| R1422 | VRD-RA2BE272J | J | 2.7k | 1/8W | Carbon | AA |

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|

### RESISTORS (Continued)

| | | | | | | |
|---|---|---|---|---|---|---|
| R1425 | RR-XZ0036TAZZ | J | 15 | 1/4W | Fuse Resistor | AB |
| R1426 | VRD-RA2BE103J | J | 10k | 1/8W | Carbon | AA |
| R1427 | VRD-RA2BE104J | J | 100k | 1/8W | Carbon | AA |
| R1428 | VRD-RA2BE473J | J | 47k | 1/8W | Carbon | AA |
| R1801 | VRD-RA2EE820J | J | 82 | 1/4W | Carbon | AA |
| R1802 | VRD-RA2BE561J | J | 560 | 1/8W | Carbon | AA |
| R1803 | VRD-RA2EE820J | J | 82 | 1/4W | Carbon | AA |
| R1804 | VRD-RA2BE561J | J | 560 | 1/8W | Carbon | AA |
| R1805 | VRD-RA2EE820J | J | 82 | 1/4W | Carbon | AA |
| R1806 | VRD-RA2BE561J | J | 560 | 1/8W | Carbon | AA |
| R1807 | VRD-RA2EE820J | J | 82 | 1/4W | Carbon | AA |
| R1808 | VRD-RA2BE102J | J | 1k | 1/8W | Carbon | AA |

### MISCELLANEOUS PARTS

| | | | | | |
|---|---|---|---|---|---|
| CN1301 | QCNW-1267PEZZ | R | Connecting Cord | | AT |
| P1301 | QPLGN0341CEZZ | J | Plug 3-pin (I) | | AA |
| P1302 | QPLGN0341CEZZ | J | Plug 3-pin (YA) | | AA |
| R1401 | QPLGN0641CEZZ | J | Plug 6-pin (RD) | | AB |
| P1402 | QPLGN0541CEZZ | J | Plug 5-pin (Y) | | AB |
| P1801 | QPLGN0641CEZZ | J | Plug 6-pin (OD) | | AB |
| P1802 | QPLGN0641CEZZ | J | Plug 6-pin (OE) | | AB |
| ⚠ SC1401 | QSOCZ2104CEZZ | J | CRT Socket | | AH |

—— End of PWB-F ——

## PWB-G DUNTK7399WEV0
## R/C RECEIVER UNIT

### DIODE

| | | | | |
|---|---|---|---|---|
| D1001 | RH-PX0095CEZZ | J | LED, Red/Green | AE |

### MISCELLANEOUS PARTS

| | | | | |
|---|---|---|---|---|
| RMC1001 | RRMCU0190CEZZ | J | R/C Receiver | AL |
| SC1003 | QSOCN0579GEZZ | J | Socket 5-pin, (ME) | AC |
| | LHLDP1027PE00 | R | LED Holder | AC |

—— End of PWB-G ——

# PWB-H DUNTK7189WEW1
## TELETEXT UNIT

### INTEGRATED CIRCUITS

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| IC3001 | VHiLH5168//-1 | R | | AW |
| IC3002 | RH-iX2016CEZZ | J | TELETEXT Decoder | BE |
| IC3003 | RH-iX1575CEZZ | J | TELETEXT Controller | AX |
| IC3004 | VHiCAT24C02-1 | J | Memory | AL |
| IC3005 | VHiTC4006BP-1 | J | TELETEXT Interface | AQ |
| IC3006 | VHiTC4011BP-1 | J | TELETEXT Interface | AF |
| IC3007 | VHiTC4001BP-1 | J | TELETEXT Interface | AF |
| IC3008 | RH-iX1167CEZZ | J | TELETEXT Interface | AP |
| IC3009 | VHiPST529C2-1 | J | PST529C | AD |
| IC3010 | VHiUPC78M05H1 | J | 5V Regulator | AK |
| IC3101 | VHiTA7347P/-1 | J | | AG |
| IC3102 | VHiTA7347P/-1 | J | Video Switch | AG |

### TRANSISTORS

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| Q3003 | VS2SC1815GW-1 | J | 2SC1815 (GW) | AB |
| Q3004 | VS2SC1815GW-1 | J | 2SC1815 (GW) | AB |
| Q3005 | VS2SA1300//2E | J | 2SA1300 | AC |
| Q3006 | VS2SC1815GW-1 | J | 2SC1815 (GW) | AB |
| Q3007 | VS2SA1015Y/1E | J | 2SA1015 (Y) | AC |
| Q3008 | VS2SA1015Y/1E | J | 2SA1015 (Y) | AC |
| Q3010 | VS2SC1815GW-1 | J | 2SC1815 (GW) | AB |
| Q3011 | VS2SC1815GW-1 | J | 2SC1815 (GW) | AB |
| Q3101 | VS2SC1815GW-1 | J | 2SC1815 (GW) | AB |
| Q3102 | VS2SC1815GW-1 | J | 2SC1815 (GW) | AB |

### DIODES

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| D3001 | VHD1SS119//1E | J | 1SS119 | AA |
| D3002 | VHD1SS119//1E | J | 1SS119 | AA |
| D3003 | VHD1SS119//1E | J | 1SS119 | AA |
| D3004 | VHD1SS119//1E | J | 1SS119 | AA |
| D3006 | VHD1SS119//1E | J | 1SS119 | AA |
| D3008 | RH-EX0215CEZZ | J | Zener Diode | AB |
| D3009 | RH-EX0215CEZZ | J | Zener Diode | AB |
| D3010 | VHD1SS119//1E | J | 1SS119 | AA |

### PACKAGED CIRCUIT

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| X3002 | RCRSB0006PEZZ | R | Crystal | AK |

### COIL AND TRANSFORMERS

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| CF3001 | RFiLA0042CEZZ | J | Ceramic Filter | AD |
| CF3002 | RFiLC0038GEZZ | J | Ceramic Filter | AE |
| L3001 | VP-DF1R5M0000 | J | Coil, 1.5$\mu$H | AB |
| L3003 | VP-DF1R0M0000 | J | Coil, 1$\mu$H | AB |

### CAPACITORS

| Ref. No. | Part No. | ★ | | | | Code |
|---|---|---|---|---|---|---|
| C3001 | VCFYHA1HA104J | J | 0.1 | 50V | M. Polyester | AB |
| C3002 | VCEAGA1AW227M | J | 220 | 10V | Electrolytic | AB |
| C3003 | VCKYPA1HF103Z | J | 0.01 | 50V | Ceramic | AA |
| C3004 | VCKYPA1HB102K | J | 1000p | 50V | Ceramic | AA |
| C3006 | VCCCPA1HH560J | J | 56p | 50V | Ceramic | AA |
| C3007 | VCFYHA1HA104J | J | 0.1 | 50V | M. Polyester | AB |
| C3008 | VCFYHA1HA104J | J | 0.1 | 50V | M. Polyester | AB |
| C3009 | VCKYPA1HF103Z | J | 0.01 | 50V | Ceramic | AA |
| C3010 | VCEAGA1CW107M | J | 100 | 16V | Electrolytic | AB |
| C3011 | VCKYPA1HF103Z | J | 0.01 | 50V | Ceramic | AA |
| C3012 | VCCCPA1HH270J | J | 27p | 50V | Ceramic | AA |
| C3013 | VCCCPA1HH270J | J | 27p | 50V | Ceramic | AA |
| C3014 | VCKYD41CY103N | J | 0.01 | 16V | Ceramic | AA |
| C3016 | VCKYD41CY103N | J | 0.01 | 16V | Ceramic | AA |
| C3017 | VCCSPA1HL221J | J | 220p | 50V | Ceramic | AA |
| C3018 | VCCSPA1HL221J | J | 220p | 50V | Ceramic | AA |
| C3019 | VCEAGA1HW474M | J | 0.47 | 50V | Electrolytic | AA |
| C3020 | VCKYD41CY103N | J | 0.01 | 16V | Ceramic | AA |
| C3021 | VCEAGA1CW107M | J | 100 | 16V | Electrolytic | AB |
| C3022 | VCKYD41HB102K | J | 1000p | 50V | Ceramic | AA |
| C3025 | VCKYD41CY103N | J | 0.01 | 16V | Ceramic | AA |
| C3027 | VCEAGA1CW476M | J | 47 | 16V | Electrolytic | AB |
| C3029 | VCFYHA1HA473J | J | 0.047 | 50V | M. Polyester | AB |
| C3030 | VCEAGA1CW226M | J | 22 | 16V | Electrolytic | AB |
| C3031 | VCEAGA1CW106M | J | 10 | 16V | Electrolytic | AA |
| C3032 | VCEAGA1AW227M | J | 220 | 10V | Electrolytic | AB |
| C3033 | VCEAGA1AW227M | J | 220 | 10V | Electrolytic | AB |
| C3034 | VCEAGA1AW227M | J | 220 | 10V | Electrolytic | AB |
| C3035 | VCFYHA1HA104J | J | 0.1 | 50V | M. Polyester | AB |
| C3036 | VCEAGA1AW227M | J | 220 | 10V | Electrolytic | AB |
| C3038 | VCE9AA1CW106M | J | 10 | 16V | Elect. (N.P) | AB |
| C3040 | VCCCPA1HH150J | J | 15p | 50V | Ceramic | AA |
| C3101 | VCKYPA1HF103Z | J | 0.01 | 50V | Ceramic | AA |
| C3102 | VCEAGA1CW476M | J | 47 | 16V | Electrolytic | AB |
| C3103 | VCE9AA1CW106M | J | 10 | 16V | Elect. (N.P) | AB |
| C3104 | VCE9AA1CW106M | J | 10 | 16V | Elect. (N.P) | AB |
| C3106 | VCEAGA1CW107M | J | 100 | 16V | Electrolytic | AB |
| C3107 | VCKYPA1HF103Z | J | 0.01 | 50V | Ceramic | AA |
| C3108 | VCEAGA1CW476M | J | 47 | 16V | Electrolytic | AB |
| C3109 | VCEAGA1CW106M | J | 10 | 16V | Electrolytic | AA |
| C3110 | VCE9AA1CW106M | J | 10 | 16V | Elect. (N.P) | AB |

### RESISTORS

| Ref. No. | Part No. | ★ | | | | Code |
|---|---|---|---|---|---|---|
| R3001 | VRD-RA2BE221J | J | 220 | 1/8W | Carbon | AA |
| R3002 | VRD-RA2BE273J | J | 27k | 1/8W | Carbon | AA |
| R3003 | VRD-RA2BE273J | J | 27k | 1/8W | Carbon | AA |
| R3005 | VRD-RA2BE183J | J | 18k | 1/8W | Carbon | AA |
| R3006 | VRD-RA2BE332J | J | 3.3k | 1/8W | Carbon | AA |
| R3007 | VRD-RA2BE183J | J | 18k | 1/8W | Carbon | AA |
| R3008 | VRD-RA2BE472J | J | 4.7k | 1/8W | Carbon | AA |
| R3009 | VRD-RA2BE104J | J | 100k | 1/8W | Carbon | AA |
| R3010 | VRD-RA2BE471J | J | 470 | 1/8W | Carbon | AA |

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|

## PACKING PARTS
*(NOT REPLACEMENT ITEM)*

| | | | |
|---|---|---|---|
| SPAKC5732PEZZ | – | Packing Case | — |
| SPAKP0046PEZZ | – | Polystyrene Mat | — |
| SPAKX0328PEZZ | – | Buffer Material | — |
| TLABK0001PEZZ | – | Number Card | — |

End of PACKING PARTS

## SUPPLIED ACCESSORIES

### ACCESSORIES

| | | | |
|---|---|---|---|
| RRMCG0853PESA | R | Infrared Remote Control Unit | BA |

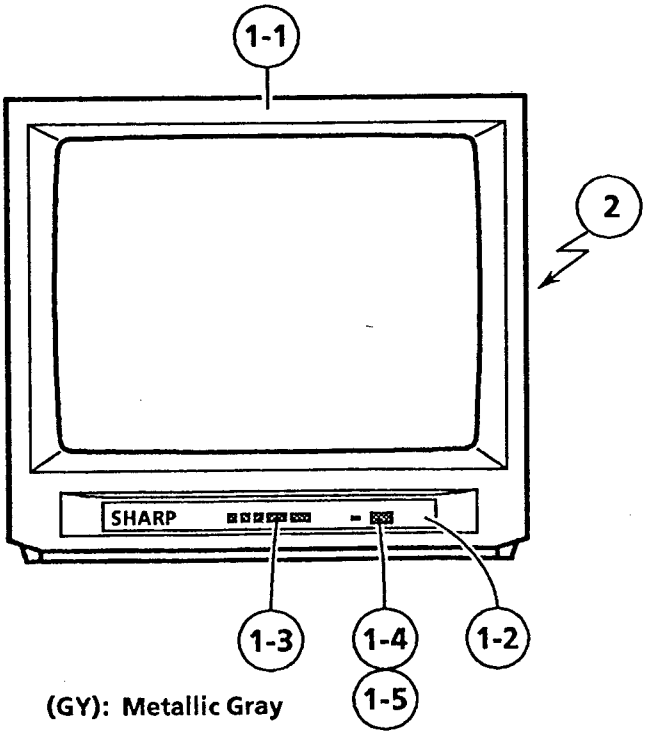
### ACCESSORIES (*NOT REPLACEMENT ITEM*)

| | | | |
|---|---|---|---|
| TINS-4975PEZZ | – | Operation Manual | — |
| TMAPC3852PEZZ | – | Service Map | — |
| UBATU1032CCN1 | – | Dry Batteries, Size AAA (2 pcs) | — |

End of SUPPLIED ACCESSORIES

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|

## CABINET PARTS LOCATION




(GY): Metallic Gray

## CABINET PARTS

| | | | | |
|---|---|---|---|---|
| 1 | CCABA2127WEW4 | R | Front Cabinet Ass'y | BK |
| 1-1 | *Not Available* | – | Front Cabinet | — |
| 1-2 | HINDP0158PESA | R | Indication Plate | AL |
| 1-3 | JBTN-0077PESA | R | Button, Ch/Vol. | AD |
| 1-4 | JBTN-0079PESA | R | Button, Power | AC |
| 1-5 | MSPRC0068CEFW | R | Spring, for Power Button | AA |
| 2 | GCABB2125PEKA | R | Rear Cabinet | BC |

End of CABINET PARTS

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|

## PWB-H DUNTK7189WEW5
### TELETEXT UNIT (Continued)

**RESISTORS (Continued)**

| | | | | | | |
|---|---|---|---|---|---|---|
| R3012 | VRD-RA2BE471J | J | 470 | 1/8W | Carbon | AA |
| R3013 | VRD-RA2BE471J | J | 470 | 1/8W | Carbon | AA |
| R3018 | VRD-RA2BE471J | J | 470 | 1/8W | Carbon | AA |
| R3019 | VRD-RA2EE105J | J | 1M | 1/4W | Carbon | AA |
| R3020 | VRD-RA2BE471J | J | 470 | 1/8W | Carbon | AA |
| R3021 | VRD-RA2BE472J | J | 4.7k | 1/8W | Carbon | AA |
| R3022 | VRD-RA2BE472J | J | 4.7k | 1/8W | Carbon | AA |
| R3023 | VRD-RA2BE473J | J | 47k | 1/8W | Carbon | AA |
| R3024 | VRD-RA2BE392J | J | 3.9k | 1/8W | Carbon | AA |
| R3026 | VRD-RA2BE223J | J | 22k | 1/8W | Carbon | AA |
| R3027 | VRD-RA2BE683J | J | 68k | 1/8W | Carbon | AA |
| R3028 | VRD-RA2BE683J | J | 68k | 1/8W | Carbon | AA |
| R3030 | VRD-RA2BE101J | J | 100 | 1/8W | Carbon | AA |
| R3031 | VRD-RA2BE102J | J | .1k | 1/8W | Carbon | AA |
| R3032 | VRD-RA2EE105J | J | 1M | 1/4W | Carbon | AA |
| R3033 | VRD-RA2BE104J | J | 100k | 1/8W | Carbon | AA |
| R3034 | VRD-RA2BE473J | J | 47k | 1/8W | Carbon | AA |
| R3035 | VRD-RA2BE473J | J | 47k | 1/8W | Carbon | AA |
| R3036 | VRD-RA2BE562J | J | 5.6k | 1/8W | Carbon | AA |
| R3037 | VRD-RA2BE102J | J | 1k | 1/8W | Carbon | AA |
| R3038 | VRD-RA2BE102J | J | 1k | 1/8W | Carbon | AA |
| R3039 | VRD-RA2BE561J | J | 560 | 1/8W | Carbon | AA |
| R3040 | VRD-RA2BE561J | J | 560 | 1/8W | Carbon | AA |
| R3041 | VRD-RA2BE123J | J | 12k | 1/8W | Carbon | AA |
| R3042 | VRD-RA2BE561J | J | 560 | 1/8W | Carbon | AA |
| R3043 | VRD-RA2BE123J | J | 12k | 1/8W | Carbon | AA |
| R3044 | VRD-RA2BE101J | J | 100 | 1/8W | Carbon | AA |
| R3046 | VRD-RA2BE331J | J | 330 | 1/8W | Carbon | AA |
| R3048 | VRD-RA2BE222J | J | 2.2k | 1/8W | Carbon | AA |
| R3050 | VRD-RA2BE392J | J | 3.9k | 1/8W | Carbon | AA |
| R3057 | VRD-RA2BE223J | J | 22k | 1/8W | Carbon | AA |
| R3058 | VRD-RA2BE472J | J | 4.7k | 1/8W | Carbon | AA |
| R3059 | VRD-RA2BE561J | J | 560 | 1/8W | Carbon | AA |
| R3060 | VRD-RA2BE472J | J | 4.7k | 1/8W | Carbon | AA |
| R3061 | VRD-RA2BE224J | J | 220k | 1/8W | Carbon | AA |
| R3062 | VRD-RA2BE222J | J | 2.2k | 1/8W | Carbon | AA |
| R3063 | VRD-RA2BE103J | J | 10k | 1/8W | Carbon | AA |
| R3064 | VRD-RA2BE472J | J | 4.7k | 1/8W | Carbon | AA |
| R3065 | VRD-RA2BE102J | J | 1k | 1/8W | Carbon | AA |
| R3066 | VRD-RA2BE562J | J | 5.6k | 1/8W | Carbon | AA |
| R3067 | VRD-RA2BE471J | J | 470 | 1/8W | Carbon | AA |
| R3068 | VRD-RA2BE123J | J | 12k | 1/8W | Carbon | AA |
| R3071 | VRD-RA2BE122J | J | 1.2k | 1/8W | Carbon | AA |
| R3072 | VRD-RA2BE102J | J | 1k | 1/8W | Carbon | AA |
| R3073 | VRD-RU2EE101J | J | 100 | 1/4W | Carbon | AA |
| R3074 | VRD-RU2EE472J | J | 4.7k | 1/4W | Carbon | AA |
| R3075 | VRD-RU2EE100J | J | 10 | 1/4W | Carbon | AA |
| R3101 | VRD-RA2BE100J | J | 10 | 1/8W | Carbon | AA |
| R3102 | VRD-RU2EE102J | J | 1k | 1/4W | Carbon | AA |
| R3104 | VRD-RU2EE152J | J | 1.5k | 1/4W | Carbon | AA |
| R3105 | VRD-RA2BE332J | J | 3.3k | 1/8W | Carbon | AA |

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|

**RESISTORS (Continued)**

| | | | | | | |
|---|---|---|---|---|---|---|
| R3107 | VRD-RA2BE103J | J | 10k | 1/8W | Carbon | AA |
| R3108 | VRD-RA2BE472J | J | 4.7k | 1/8W | Carbon | AA |
| R3109 | VRD-RA2BE100J | J | 10 | 1/8W | Carbon | AA |
| ⚠ R3110 | RR-XZ0035TAZZ | J | 22 | 1/4W | Fuse Resistor | AB |
| R3112 | RR-XZ0035TAZZ | J | 22 | 1/4W | Fuse Resistor | AB |
| R3113 | VRD-RU2EE122J | J | 1.2k | 1/4W | Carbon | AA |

**MISCELLANEOUS PARTS**

| | | | | |
|---|---|---|---|---|
| CN3001 | QCNW-1268PEZZ | R | Connecting Cord | AR |
| P3003 | QPLGN0641CEZZ | J | Plug 6-pin, (OD) | AB |
| P3004 | QPLGN0441CEZZ | J | Plug 4-pin, (DB) | AB |
| P3005 | QPLGN0341CEZZ | J | Plug 3-pin, (EB) | AA |
| P3101 | QPLGN0641CEZZ | J | Plug 6-pin, (RD) | AB |
| | LHLDW1019PEZZ | R | Wire Holder | AB |

—— End of PWB-H ——

## MISCELLANEOUS PARTS

| | | | | |
|---|---|---|---|---|
| ⚠ ACC701 | QACCZ2001PESA | R | AC Cord * | AN |
| CN301 | QCNW-1265PEZZ | R | Connector | AF |
| SP1 | VSP0080P-G6WA | R | Speaker, 8 cm, 16 Ω | AF |
| | LHLDW0001PEK0 | R | AC Cord Holder | AD |

*** Remark:**
**When changing main cord the whole cord with connection plug must be changed.**

The cable is kept as a spare part by:

- SWEEDEN
  SHARP ELECTRONICS (SVENSKA) AB
- DENMARK
  RUDOLPH SCHMIDT A/S
- FINLAND
  ASA KULUTUS ELEKTRONIIKA OY
- NORWAY
  TRANSEL A/S

—— End of MISCELLANEOUS PARTS ——